Faculty of Arts
University of Helsinki

A Grammar of Eastern Geshiza

A Culturally Anchored Description

Sami Honkasalo

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Doctoral dissertation

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Cover image: A Geshiza lady carrying her grandchild in Balang (Ge. *bəra*; Ch. 巴郎) Village
Photo by Sami Honkasalo

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ABSTRACT

Keywords: *Geshiza, Gyalrongic, Trans-Himalayan, Sino-Tibetan, descriptive grammar*

Adopting a functional-typological framework, this dissertation describes Eastern Geshiza (autoglossonyms: *bæ-skæ, roŋ-skæ, rgævɕetsa-skæ, ŋæ=ɲi skæ*), a previously insufficiently known Trans-Himalayan (Sino-Tibetan) Horpa language spoken primarily in eastern Geshiza Valley of Danba County in the People's Republic of China. The approximately 5000 speakers of Eastern Geshiza are categorised as ethnic Tibetans, practice agriculture, and follow the religious traditions of Bön and Tibetan Buddhism. Following an approach emphasising linguistic ecology, this descriptive grammar aims to anchor the grammatical description to the various contexts of the language.

Eastern Geshiza is currently endangered. Almost all speakers of the language are now bilingual: Eastern Geshiza functions as an in-group language while Sichuanese Mandarin, also acquired since childhood, is used for external communication as a regional lingua franca. Knowledge of Tibetan lects and Written Tibetan, however, is low among the speakers. A substantial influx of new lexical loans from Chinese and a gradual language shift towards Chinese among the young constitute issues that will greatly affect both the future shape and vitality of the language.

Eastern Geshiza exhibits complex phonology. It possesses an extensive phoneme inventory that contains 8 fully phonemic vowels and 37 fully phonemic consonants. The language abounds in complex consonant clusters of up to three members. Eastern Geshiza is morphologically complex. The complexity is particularly prominent in verb morphology that is characterised by an argument indexation system based on accessibility hierarchy and a set of multifunctional verbal prefixes that encode orientation, aspect, and mood. Like many of the other regional languages, Eastern Geshiza is rich in evidential categories and includes the grammatical category of engagement. Typological peculiarities of the language make it an important source of data for typological research.

The present descriptive grammar is based on first-hand field data collected on five major field trips during 2015-18 with a total duration of approximately eight months. The fieldwork was primarily carried out in Balang (Ge. *bəra*; Ch. 巴郎) Village and the surrounding area, the easternmost Geshiza-speaking communities close to Danba County Town. As its theoretical foundations, the description builds on Basic Linguistic Theory and linguistic typology. I hope that this description of the language's most prominent features will be helpful in advancing our knowledge in Horpa studies and Trans-Himalayan linguistics together with providing new material for linguistic typology and other branches of linguistics.

TIIVISTELMÄ

Avainkäsitteet: *Geshiza, gyalrong-kielet, transhimalajalaiset kielet, sinotiibetiläiset kielet, deskriptiivinen kielioppi*

Hyödyntäen funktionaalis-typologista viitekehystä tämä väitöskirja kuvaa itäisen geshizan kielen (autoglossonyymit: *bæ-skæ, roŋ-skæ, rgævɕetsa-skæ, ŋæ=ɲi skæ*). Geshiza on aiemmin riittämättömästi tunnettu sinotiibetiläinen (transhimalajalainen) horpakieli, jota puhutaan pääasiallisesti Geshizan laakson itäosissa Danban läänissä Kiinan kansantasavallassa. Itäisen geshizan noin 5000 puhujaa luokitellaan etnisesti tiibetiläisiksi. He harjoittavat maanviljelystä ja seuraavat uskontoinaan sekä böniä että tiibetinbuddhalaisuutta. Lähestymistavaltaan tämä deskriptiivinen kielioppi painottaa kieliekologiaa ja pyrkii ankkuroimaan geshizan kielen sen moninaisiin konteksteihin.

Itäinen geshiza on muuttunut uhanalaiseksi. Lähes kaikki itäisen geshizan puhujat ovat nyt kaksikielisiä: itäinen geshiza toimii ryhmän sisäisenä kielenä, kun taas Sichuanin mandariinia, jonka geshizat myös oppivat lapsuudessaan, käytetään ryhmän ulkoiseen kommunikaatioon *lingua francana*. Tiibetin kielimuotoja tai kirjoitettua tiibetiä ei kuitenkaan tunneta laajalti geshizojen keskuudessa. Suuri määrä uusia lainasanoja kiinasta ja asteittainen kielenvaihto kohti kiinaa nuorten geshizojen parissa ovat tällä hetkellä kaksi keskeistä asiaa, jotka vaikuttavat geshizan kielen tulevaan muotoon sekä sen elinvoimaisuuteen jatkossa.

Itäisen geshizan kielessä on kompleksinen fonologia. Kielessä on laaja foneemi-inventaario, joka sisältää 8 täysin foneemista vokaalia sekä 37 täysin foneemista konsonanttia. Konsonantit muodostavat laajan kirjon konsonanttiyhtymiä, joissa voi olla mukana jopa kolme jäsentä. Lisäksi itäinen geshiza on morfologisesti kompleksinen kieli. Tämä kompleksisuus tulee vahvasti esille verbimorfologiassa, jossa keskeistä osaa näyttelee saavutettavuus-hierarkiaan perustuva argumentti-indeksaatio ja monikäyttöiset verbiprefiksit, jotka merkitsevät orientaatiota, aspektia, sekä modusta. Kuten monet muut alueen kielet, itäinen geshiza sisältää runsaasti evidentiaalisuuden alaryhmiä ja kielessä on tämän lisäksi myös hiljattain tunnistettu *engagement*-kategoria. Kielen typologiset ominaispiirteet tekevät siitä tärkeän lähteen typologiselle tutkimukselle.

Tämä deskriptiivinen kielioppi perustuu ensikäden kenttätutkimusaineistoon, jonka keräsin viiden keskeisen aineistonkeruumatkan aikana vuosina 2015-2018. Aineistonkeruumatkojen yhteenlaskettu kokonaiskesto oli noin kahdeksan kuukautta. Suoritin kenttätutkimuksen pääasiallisesti Balangin (ge. *bəra;* kiin. 巴郎) kylässä sekä sitä ympäröivällä alueella, jotka muodostavat itäisimmät geshizankieliset yhteisöt Danban läänikaupungin läheisyydessä. Teoreettisena pohjana kieliopille toimii Basic Linguistic Theory ja kielitypologia.

Toivon, että laatimani kielioppi geshizan keskeisimmistä ominaisuuksista auttaa edistämään horpakielten ja sinotiibetiläisten (transhimalajalaisten) kielten tutkimusta sekä tarjoaa lisäksi uutta materiaalia kielitypologialle ja muille kielitieteen haaroille.

ACKNOWLEDGEMENTS

While grammaticography can be a solitary experience, no descriptivist is an island. It is only through the extraordinary help and unflagging support of both my colleagues and friends on the field that I have managed to compose this grammar, both a scientific and an artistic endeavour. Looking back, had I been aware of all of the difficulties and challenges before commencing my work, I would have been beyond doubt petrified. While my research on Geshiza has been rewarding and life-changing, the process has nevertheless been beset with many difficulties of both theoretical and practical kind, like any description of a previously underdescribed language. Therefore, I would like to dedicate this space to offer my heartfelt thanks to all people who have been either directly or indirectly involved in making this grammar possible. All errors and faulty interpretations – and a plethora of them remain – are my own.

To begin with, I would like to deeply thank all my Geshiza friends and consultants for warmly accepting me into their communities and families, patiently teaching me their language and way of life.[1] The present grammar is my humble homage to you all. Among the Geshiza speakers, I give the deepest of thanks to my main consultants and friends in *ɕʰotɕa* (学加) family: *rdʑægæ* (甲呷), *næmkʰamu* (兰卡姆), *dærdʑe* (大尔吉), and *joŋdʐoŋ* (拥忠) in Balang (Ge. *bəra;* Ch. 巴郎) Village that through the years became a much missed second home to me. I also thank the family's son *joŋdʐoŋmbə* (拥忠布) in Luhuo (Ge. *luxo*; Ch. 炉霍) for his help. *Dærdʑe* and *joŋdʐoŋ*'s children constantly cheered up my days of research, and I hope that they will remember *'sami æʑo*' when they grow up. My deep wish is that we all will be able to meet soon again.

Many thanks to Balang Village headman *joŋdʐoŋ-pʰəntsʰɔ* (拥忠彭错) for our recording session together and for his continuing support during the field project. Also, my thanks go to *rdʑæmtsʰo-nærbə* (江初拉尔布) for his generous hospitality and for providing comparative data and historical anecdotes from Dandong Geshiza, the western dialect of the language. Furthermore, I am grateful to *rdʑægæ ʝloŋtʰæ* (甲呷龙太) from Ka'erjin (Ge. *mkʰærtɕə;* Ch. 柯尔金), *vzjoro gætsa* (夏拉格扎) from *tɕælkəu* Village of Xishua (Ge. *ɕiɕua;* Ch. 西刷), and *ŋgərə ɣælo* (俄日阿落) from Balang for sharing their knowledge of Geshiza folklore and local history. My project would have been less successful without *ɲəma dordʑimbə* (尼玛多吉布) whom I thank for his friendship and help during my stay in Geshiza, including story-collection visits and recording together. My thanks also go to his wife *rdʑæmtsʰo* (降初) for our recording session together.

[1] The names are written in the form given by the consuntants during interviews and recording sessions, resulting in two patterns. Names connected with a hyphen are single compound personal names (see §6.3.3 for coordinate compounding), while those that are separated by a space differ structurally by including a *we-lmə* 'house name' (see §2.3.4) followed by the personal name.

In addition, I thank *rdʑæmtsʰo-nærbə* (降初拉尔布) from Balang for his help in story transcription and recording of individual lexical items. I also express my deep thanks to my other short-time helpers interviewed in Balang for their patient collaboration and help in completing project: *rdʑæmtsʰo-dəŋgru* (江初登干), *næmdʑæ-ɕʰæmu* (南木加夏姆), and *tɕotʰæ bəkʰrə* (甲太布尺). I am equally grateful for the numerous consultants and storytellers who decided to stay anonymous, but were willing to share their time and knowledge by collaborating in this project, be it in the form of grammatical fieldwork, recorded conversations, or recording the folklore and traditional Geshiza oral artforms. I hope that in the future, such recordings may be used to give new generations a digital access to this aspect of the culture that is deeply valued and deemed important by the elderly.

At the University of Helsinki, I want to express my gratitude to my thesis supervisors, professors Matti Miestamo and Juha Janhunen. Matti has not only meticulously commented the drafts of this grammar from its earliest stages on and thus shepherded the manuscript to its completion, but also shared his extensive typological knowledge to make this grammar more usable for non-Gyalrongologists and non-Trans-Himalayanists. Upon my return to Finland in 2014, Juha made me aware of the Horpa languages in the first place and suggested the description of one as a possible dissertation topic. Without Juha, I probably wouldn't have ended up with this fascinating language group as an object of my study. Juha has also guided me with his extensive regional expertise during the project. I also warmly thank professor Seppo Kittilä at the University of Helsinki who on top of all other things, such as precious comments on transitivity and coding of semantic roles, also offered me an opportunity to work together in the project *Interactional, cross-linguistic, theoretical and areal perspectives on evidentiality and egophoricity* (EVIDEGO) that he led at the university, a great opportunity to explore the epistemic system of Geshiza more deeply.

A very special thanks to professors Scott DeLancey and Guillaume Jacques who served as the pre-examiners of my dissertation and offered me insightful feedback and perceptive comments across the whole manuscript, to the extent that I am unable to indicate this in all individual contexts in the main text of the grammar. Guillaume's comments were especially helpful for seeing Geshiza from in the light of Gyalrongic research, while those of Scott helped me to approach Geshiza from the viewpoint of Trans-Himalayan studies and typology as a whole. In addition, I am grateful to doctor Katia Chirkova who accepted the role of an opponent for my doctoral defence. I am extremely grateful for this rare possibility to receive comments on my work from three leading scholars of Trans-Himalayan/Sino-Tibetan linguistics.

This study has only been financially possible because of funding from Kone Foundation. The Foundation not only supported this project through a research grant for four years, but it also generously provided me with additional travel grants that allowed me to conduct extensive fieldwork required for writing this grammar. To me, equally important to the financial aspect has been the demonstration of belief in my project, which has given me strength to carry through the long process. Also, two travel grants from Emil Aaltonen Foundation and a grant from

LANGNET for studying the Tibetan language in Dharamshala, together with fieldwork funding from Helsinki Area & Language Studies (HALS) and the EVIDEGO project greatly contributed towards making this grammatical description better.

Numerous colleagues at the University of Helsinki engaged in Trans-Himalayan research have immensely helped me in my research. I would like to extend my deep thanks to Erika Sandman whose insights and expertise from an adjacent region have helped me in improving this grammar. I also thank my colleagues in the PhD programme working with closely-related topics, Nailya Philippova and Juha Yliniemi, with whom I have had the pleasure to discuss our shared field of Trans-Himalayan linguistics – and also a myriad of more mundane topics. I also want to thank Olli Silvennoinen and Nicklas Oranen for their help, insightful comments, and for our great time together. In addition, I am grateful to all comments I have received from my other colleagues at the University of Helsinki working with different language families and theoretical topics.

Outside my home university, I am grateful to Herbert/Lhundrop/Tunzhi who not only introduced me to my primary consultant family, but also explained many practical issues of fieldwork in Sichuan to me. I also express my deepest thanks to Kevin Stuart whose mentoring and steadfast support has meant a lot to me during the research project. Kevin's comments and editing on the chapter on linguistic ecology greatly improved its user-friendliness. I would also like to thank Jesse Gates, a fellow Horpa researcher with whom I have compared the Geshiza and Stau languages and shared many ideas concerning how these languages work. Furthermore, many thanks to Gerald Roche who shared his anthropological expertise of the Tibetosphere with his numerous and perceptive comments on the chapter on linguistic ecology. In addition, I owe thanks to professor Tenzin Jinba with whom I discussed the issue of glossonyms in Danba County.

In addition to regional experts, I have received immeasurable support from linguists working in other geographical areas or researching theoretical subfields. Special thanks to professor Peter Austin to whom I am indebted for the two Documentary Linguistics (DocLing) Workshops in Tokyo that I have been lucky to attend. I am also grateful to professor Riho Grünthal who in addition to being an ideal working partner in a field trip to South Africa also enlightened me concerning endonyms in the world's languages. I would also like to thank Stephen Pepper who greatly enlightened me on nominal compounding, and Marielle Prins with whom I discussed the Gyalrongic culture.

I express my gratitude to my mentors and professors at the University of Tokyo, my alma mater and academic cradle in Japan. My deepest thanks are especially sent to professors Nishimura Yoshiki (西村義樹), Hayasi Tooru (林徹), and Kumamoto Hiroshi (熊本裕) who guided my first steps in linguistics and showed me that linguistic research was a lot more that I had previously imagined. At my second spiritual home at Yale, professor Mark Turin mentored me on Trans-Himalayan research, his passion and enthusiasm for the field deepening my final commitment to pursue a PhD in linguistics. My academic advisor, professor Fabian Drixler,

gave me the final push that I needed when I vacillated between linguistics and international relations by pointing out that while theories of international relations tend to change and be replaced at a fast pace in our era, describing and documenting an endangered language makes it likely easier to offer a more permanent contribution to human knowledge. At the same time, I hope that the present grammar will not remain the last word on Geshiza studies, but will be superseded by more extensive and accurate investigations in the future.

I also offer my thanks to all the other people whom I have failed to mention by name, yet whose help and support has contributed towards making this project possible.

My family equally deserves my gratitude for all their support. I now finally have something concrete to show as to what has kept me so busy during these past years instead of being engaged in more financially rational career options. Finally, loving thanks to my wife Juli for all her support and for bearing with me over the whole long project – and sorry for hogging the writing desks everywhere and stealing your drinks all the time.

This work is dedicated to the Geshiza people.
May many further generations speak the language!

BRIEF TABLE OF CONTENTS

For a detailed listing of the contents, see *Full table of contents* on page xvi.

VOLUME 1[2]

[2] Due to technical reasons, the printed version of this grammar is divided into two volumes. The digital edition contains all chapters in one file.

FULL TABLE OF CONTENTS

VOLUME 1[3]

[3] Due to technical reasons, the printed version of this grammar is divided into two volumes. The digital edition contains all chapters in one file.

VOLUME 2

ABBREVIATIONS USED IN GLOSSING

As the basic principle, glossing of examples in this grammar follows Leipzig Glossing Rules (see https://www.eva.mpg.de/lingua/resources/glossing-rules.php). New abbreviations have been adopted for grammatical categories not included in the Rules. The abbreviations used in this grammar are listed below. Some of the basic abbreviations are combined for forming new abbreviations: e,g. NEG.COP for the negative copula.

1	first person	CONJ	conjunction
2	second person	COP	copula
3	third person	CS	compound stem
AB	autobenefactive	DAT	dative
ABS	absolutive	DEM	demonstrative
ACC	accusative	DIR	orientation prefix
ACT	action (in action nominalisation)	DISTR	distributive
ADE	adessive	DM	discourse marker
ADJZ	adjectiviser	DU	dual
ADV	adverbialiser	ERG	ergative
ANAPH	anaphoric	EP	epistemic suffix
ANTICAUS	anticausative	EVID	evidentiality
APPL	applicative	EXP.PERF	experiential perfect
APPR	apprehensive	EXV	existential verb
APPR.LOC	approximative locative	FOC	focus
APUD	apudessive	FOC.C	contrastive focus
ARCH.IMP	archaic imperative	GEN	genitive
ASP.NEG	aspectual negator	HES	hesitation
ASS	associative	HPREF	historical prefix
AUX	auxiliary	HSUF	historical suffix
C	contrastive	HYPO	hypocoristic suffix
CAUS	causative	IFR	inferential
CLF	classifier	IMP	imperative
CNT	continuative	INDEF	indefinite
COLL	collective	INF	infinitive
COM	comitative	INST	instrumental
CMPR	comparative	INTR	intransitiviser
CONC	universal concessive	INV	inverse

IPFV	imperfective
IRR.NEG	irrealis negation
LNK	linker
LOC	locative
LV	light verb
MOD	modal discourse enclitic
MOD.NEG	modal non-controllable negator
NACT	non-actual
NAT	nativity and source suffix
NEG	negation, negator
NEG.COP	negative copula
NMLZ	nominaliser
NMLZ:CAP	capacitative nominaliser
NMLZ:PREP	preparative nominaliser
NOM	nominative
NON.SG	non-singular
NPST	non-past
NSI	non-shared information
NUM	numeral
OPT	optative
PARAL	paralinguistic utterance
PART	partitive
PFV	perfective
PL	plural
PN	personal name
POST	postposition
POT	potential
PREES	present tense
PREF	prefix
PROG	progressive
PROH	prohibitive
PROSP	prospective
PST	past
Q	question
RED	reduplication
RED.ADJZ	reduplicative adjectivisation
RED.NMLZ	reduplicative nominalisation
REFL	reflexive
REP	reportative
REPE	repetitive
RES	resultative
SENS	sensory evidential
SUFF	suffix
SG	singular
SUPE	superessive
SUPL	superlative
TAM	tense–aspect–mood
TERM	terminative
TOP	topic
TOP.C	contrastive topic
TOPN	toponym
UNCERT	uncertainty
VBLZ	verbaliser
~	reduplication
-	morpheme boundary
=	clitic boundary
?	unclear or unidentified meaning
*	ungrammatical form (followed by italic)
.	end of a main clause
[…]	segment that has been omitted
<…>	Chinese loanword; see §1.3.2.
(…)	element absent in the recording and supplied by the consultant later on
>	direction of action

OTHER ABBREVIATIONS, CODING OF EXAMPLES, AND FONTS

Other abbreviations

*A	1. proto-form in historical reconstructions (followed by roman);
	2. ungrammatical form in the contemporary language (followed by italic)
?A	A is marginally acceptable to native speakers
†A	1. A is an obsolete term;
	2. A is an abandoned community
A < B	A is derived or borrowed from B
A > B	A changes into B
A⋋B	A and B are members of the same word family (see Matisoff 2003)
ADV	adverb
A	most agent-like participant of a transitive clause
BLT	Basic Linguistic Theory
C_f	final consonant
C_i	initial consonant
C_m	medial consonant
C_p	preinitial consonant
CC	copular complement
Ch.	Chinese
CL	Chinese loanword
CS	copular subject
DOM	differential object marking
E	extension
Ge.	Geshiza
N	noun
NP	noun phrase
P	non-agentive participant of a transitive clause
R	recipient
PTH	Proto-Trans-Himalayan
S	single participant of an intransitive clause
SAP	speech-act-participant
T	theme

Tib.	Tibetan
TL	Tibetan loanword
V	vowel, verb
WT	Written Tibetan
Σ	root
[ ]	phonetic transcription
/ /	phonemic transcription
§	section or subsection in the grammar

Coding of examples[4]

MEE	monolingually elicited example
RN	recorded narrations
UA	utterance primarily addressing the author
OU	overheard utterance primarily addressing another person besides the author
RC	recorded conversation
ACC	accepted modification
REJ	rejected modification (also accompanied by the asterisk * in the example)

Fonts

This grammar uses Times New Roman, except for the International Phonetic Alphabet (IPA), for which Doulos SIL is used. This is due to technical reasons: due to the design of the font, the symbol *æ* appears as *œ* and *a* as *ɑ* in cursive in Times New Roman, which potentially causes confusion. For the Chinese text, the font Sim Sun is adopted. Reflecting the current standard in the People's Republic of China, the Simplified character set is used throughout the text.

[4] See §1.3.2. *Coding example metadata* for a detailed explanation of the example codes.

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LIST OF FIGURES

All photos listed below are taken by the author.

MAIN CONSULTANTS

Information accurate as of 2019. In the listing, each consultant is referred to by a letter of the alphabet with no relation to their actual names. The average age of the consultants is 47.25, while the median age of China is reported as 37.4. As discussed in (§2.9.3. *Intergenerational transmission;* §2.9.4), the language of the young is especially heavily influenced by Chinese, a language shift into Chinese possibly taking initial steps among the youngest generations. Consequently, Geshiza documented in this grammar among older speakers falls somewhat to the more 'conservative' side of the spectrum. Chinese influence is nevertheless ubiquitous even among the older speakers of the language (see §14.3.2).

A (Geshiza, Balang Village (male)
A native of Balang Village, the main consultant of this grammar. A is in his fifties and he exclusively speaks in Geshiza to his sons. In addition to Geshiza, A is also fluent in Sichuanese Mandarin that he occasionally uses with his grandchildren who are more comfortable with the language. A possesses elementary skills in writing and intermediate skills in reading Written Chinese. He has extensive knowledge concerning traditional Geshiza culture, such as local histories and religious rituals.

B (Geshiza, Balang Village and the County Town, female)
A native of Balang Village in her fifties. B exclusively speaks in Geshiza to her sons. In addition to Geshiza, B is also fluent in spoken Sichuanese Mandarin that she occasionally uses with her grandchildren, but she does not write the language. Nowadays, B alternates her residence between Balang Village and Danba County Town where she looks after her grandchildren.

C (Geshiza, Balang Village, male)
A native of Balang Village in his thirties. C speaks Geshiza and Sichuanese Mandarin to his children, depending on the occasion. In addition to Geshiza, C has a fluent command of spoken Sichuanese Mandarin. He also reads Written Chinese at a high level and writes the language. C mostly works in Danba County Town, which gives him exposure to Sichuanese Mandarin.

D (Geshiza, Balang Village, female)
A native of Balang Village in her thirties. In addition to Geshiza, D has a fluent command of Sichuanese Mandarin that she occasionally uses for her children. In her youth, she spent considerable amount of time in the Chinese-speaking environment working outside her native village. She writes and reads the language well. Besides the seasonal agricultural work in

Balang, D works in the multilingual environment of Danba County Town where she is exposed to Sichuanese Mandarin.

Other consultants

In addition to the main consultants who contributed the bulk of source materials used as the basis of this grammar, several other Geshiza speakers from Balang and the surrounding villages were recorded and interviewed.

CHAPTER ONE
Introduction

This grammar offers a description of Eastern Geshiza (autoglossonyms: *bæ-skæ, roŋ-skæ, rgævɕetsa-skæ, ŋæ=ɲi skæ*), one of the understudied Horpa languages of the Gyalrongic subgroup of Trans-Himalayan.[5] Eastern Geshiza is a major dialect of the Geshiza language spoken in Geshiza Valley (Ge. *rgævɕetsa-qlo*) in Danba County (Ge. *braŋgu;* [6] Ch. 丹巴县[7]) of Sichuan Province (Ge. *səʈʂʰuæn;* Ch. 四川省) in the People's Republic of China (PRC) by approximately 5000 speakers. At least the two varieties of Eastern and Western Geshiza can be identified, spoken at the geographical opposites of the Valley. The two varieties are similar and mutually comprehensible to a degree; yet phonologically, lexically, and grammatically clearly distinct. Henceforth in this work, 'Geshiza' is used as an abbreviation to exclusively refer to Eastern Geshiza, the variety documented in this grammar. When Western Geshiza is discussed for comparative purposes, this is stated explicitly in the text.

The grammar examines Geshiza from a functional-typological perspective. The description is primarily synchronic, but it also considers diachronic issues when these provide insights on Trans-Himalayan historical linguistics or are necessary for understanding the present structures of the language. Since Geshiza exhibits many areal characteristics typical for the languages of the so-called Ethnic Corridor of Sichuan (川西民族走廊, see §1.2.1 for a definition) and because the language is currently under heavy exposure from Chinese in the form of both Standard Mandarin and the local Sichuanese Mandarin dialect, I also consider the areal context and language contact in the description.

Research on Geshiza remains embryonic. The present work is the second monograph publication on the language after the pioneering research of Duo'erji (1997), a sketch of Eastern Geshiza published in Chinese. Horpa lects, however, have recently received an increasing amount of attention from researchers. As a result, an overall picture of the linguistic nature of Horpa languages is gradually emerging, shedding light to a research field that for long remained another black spot of Trans-Himalayan studies. Against this background, I hope that *inter alia*, the grammatical description will also contribute both to the rapidly progressing Horpa research and more broadly to Trans-Himalayan scholarship.

[5] This grammar uses the term Trans-Himalayan in favor of the previously dominant Sino-Tibetan and Tibeto-Burman. Justifications for the used terminology are addressed in section §1.2.2.

[6] The full form *braŋgu-rdzoŋ* 'Danba County' has become obsolete, but is still recognised by some speakers.

[7] On their first occurrence, regional toponyms are supplied with the corresponding Chinese characters. This makes it easier for the Chinese-speaking reader to locate the toponym geographically and to find more information about it. When relevant, in common use, and familiar to the speakers, corresponding Geshiza toponyms are listed at the same context, even when they are Chinese loanwords.

This chapter methodology and previous research provides introductory information on Geshiza and forms the basis for all subsequent chapters. It is divided into discussions of the nomenclature (§1.1); genealogical and areal context of Geshiza and the dialects of the language (§1.2); (§1.3); overview of the theoretical framework this grammar builds on and the structure of the grammar (§1.4); and a typological profile of Geshiza (§1.5).

1.1. Nomenclature

This section addresses the nomenclature relevant for Geshiza from three different viewpoints. It elaborates on Honkasalo (2017) that discusses the term 'Horpa' from the Stau viewpoint. A discussion of the term that is often used as a glossonym (§1.1) is followed by introductory remarks on Chinese and Tibetan exonyms for Geshiza (§1.2). The chapter concludes with an analysis of the structure of Geshiza autoglossonyms where evidence is provided for the merits of adopting Geshiza as the preferred glossonym (§1.3).

1.1.1. The question of 'Horpa'

> Even the language names present their own problems. Many are referred to in a myriad of ways, with different names used by different outsiders and still another name used by the people themselves. (LaPolla and Thurgood 2003: 4)

The issue of nomenclature has long been central in Trans-Himalayan studies where polynymy remains widespread. In the existing literature, one language can be referred to by many names and a single glossonym can occasionally refer to several languages. To further complicate the situation, autoglossonyms used by the language communities themselves frequently differ from terms adopted by researchers. Seen against this background, systematising nomenclature in Trans-Himalayan scholarship is of paramount importance, and Geshiza is no exception. Systematisation is at its easiest when working with underdescribed languages. After initial exposure, naming conventions tend to stick in academic discourse, be they good or bad.

The term 'Horpa' (霍尔) and its variants, such as 'Horpic', are frequently used in Western and Chinese Gyalrongic studies. The term, however, requires investigation, both in its origin and suitability in the context of Geshiza. From the viewpoint of ethnonymy, Tibetans generally refer to the people around the contemporary Garzê, especially in Luhuo, and Daofu counties, as *hor pa*. The Tibetan term consists of the noun root *hor* with the agentive suffix *-pa* attached. The Tibetan root *hor* has no native Tibetan etymology, which demonstrates its foreign origin. As a possible source, Ren (1984) argues that *hor* likely originates as a loan of the Chinese *hú* (胡, Middle Chinese *ɣu) that historically used to refer to non-Chinese peoples of Central Asia. This etymological theory is problematic, since it fails to explain the presence of the coda -r in *hor*, for which reason *ɣu, too, is a very unlikely historical source for *hor*.

Several theories concerning the original referent of Horpa have been proposed, all dealing with interpretations of local history that combine both actual and mythological elements. In other words, perceived history plays a central role in understanding the term Horpa. Tunzhi (2017: 161) interprets Horpa as a pseudo-historiconym in the sense defined by Pain (2008: 641): '"(pseudo)historiconym" is an ethnonym based on an important event in the (pseudo)history of a given ethnic group'. The historical memories behind the term concern a conqueror, typically reported as the Mongols, arriving from the outside and settling down after the conquest.

Stein (1972: 34) states that Horpa originally referred to the Uyghur, but it was later applied to the Mongols of Genghis Khan. After the Mongol conquest in the thirteenth century, *hor dpon khag lnga*, five Hor States, were established at the approximate homeland of modern Horpa language speakers. The Epic of King Gesar also mentions a war between gLing, the homeland of Gesar, and the Kingdom of Hor. The memory of Mongol immigrations still lives on among locals and various local regional groups have accounts of Mongol ancestry (Zeng 2007). As an alternative explanation, (Zheng 2006) traces the original referent of Horpa to the 'Yellowhead Uygur' (黄头回鹘) who moved to the region north of Kangding where they were to some extent assimilated into culturally Tibetan groups.

The contemporary recognition of the term Horpa around the historical area of the five Hor States varies greatly on individual and communal basis. The Stau speakers interviewed by the author in Daofu County Town in 2016 professed a Horpa identity and accepted the term for self-reference. These speakers, however, were also proficient Tibetan speakers, which likely affected their identity structure. In contrast, Tunzhi (2017: 163) states that common Stau speakers are oblivious to the term, this likely being the common pattern. The Geshiza who speak a closely related lect never call themselves Horpa, and virtually all speakers even fail to recognise the term altogether. Ergo, despite the exceptions, the exonym Horpa lacks a prominent role in self-identification among most of the people to whom it has traditionally been ascribed in linguistic literature. Also, as explained by Tunzhi (2017: 162) the historical-geographical and the current linguistic use of the term do not overlap. In other words, not all people self-identifying Horpa speak a language classified as Horpa lect by linguists and not all Horpa lects are spoken by people who have Horpa identity. Consequently, Horpa should be avoided as a glossonym in reference to a particular language or lect. Tunzhi, Suzuki, and Roche (2019) argue for an even stronger position, namely abolishing the term Horpa altogether in researching communities, such as the Stau.

The term Horpa has become well established in Trans-Himalayan studies in both English and Chinese and its origin can be traced back at least to the pioneering work of Hodgson (1853). Also, analysing recent research points towards the term gaining acceptance in the field (see e.g. Jacques et al. 2017 and Sun forthcoming for recent work). Consequently, to maintain a link with the research tradition, this grammar uses Horpa for the aggregate of Geshiza and all the other interrelated lects that are more distantly related to core Gyalrong languages. In this sense, Horpa is a higher-level term that refers to a subbranch of West(ern) Gyalrongic (see Gates 2012). I

consequently do not use Horpa as a glossonym for an individual lect, e.g. Stau or Geshiza.

Finally, Ergong (尔龚), a near-synonym of Horpa in previous literature, should be avoided, since the term is offensive and possibly derives from a Horpa language term corresponding to the Geshiza *ɤgo-skæ* 'cow language' (see Tunzhi 2017: 160). The term is not currently in use in Eastern Geshiza where it only refers to the sounds made by cows, which does not exclude its historical pejorative use there, in another Geshiza dialect, or even in another closely related Horpa lect. If the possible the Horpa etymology of Ergong is accepted, the term presents a typical feature of an exonym, namely the claim that the others speak nonsense or a non-language, in contrast to the 'real' language of one's in-group. As a well-known example, ancient Greeks used the onomatopoeic term *βάρβαρος* mimicking gibberish to all peoples speaking other languages other than Greek.

1.1.2. Geshiza exonyms

A comprehensive survey of Geshiza exonyms would require an extensive analysis among all proximate ethnicities of the Geshiza and remains out of scope in this grammar. Instead, by focusing on Han Chinese, Tibetans speaking Tibetic languages[8], and the neighbouring Stau and Bawang (see §1.2.1 Figure 1.2 for a map), this subsection explains the common relevant exonyms applied to Geshiza and their language, with the focus on ethnic and language exonyms. Table 1.1 below provides a summary of recorded exonyms that are used in reference to the Geshiza. As this brief survey illustrates, more research with the surrounding ethnicities and language groups is needed for more solid conclusions.

Table 1.1. Summary of Geshiza exonyms[9]

Type	Exonym	Meaning	User group
Ethnicity	*zàngzú*	Tibetan (ethnic group)	Han Chinese
	rong mi	valley dwellers, farmers	Tibetans (Tibetic speakers)
	rome	valley dwellers, farmers	some Stau
	qa-ɲo-væ	dwellers behind the mountains	Bawang Gyalrongwa
Language	*qa-ɲo-skæ*	language behind the mountains	Bawang Gyalrongwa
	zànghuà	Tibetan speech	Han Chinese
	zàngyǔ	Tibetan language	Han Chinese
	rong skad	farmer language	Tibetans (Tibetic speakers)
	log skad	backwards language	Tibetans (Tibetic speakers)
	'dre skad	ghost language	Tibetans (Tibetic speakers)
	yul skad	local language	Tibetans (Tibetic speakers)

[8] 'Tibetan dialects', an inappropriate term still in frequent use, is better conceptualised as 'Tibetic' a branch of Trans-Himalayan languages whose members derive from Old Tibetan (see Tournadre 2014: 104).

[9] Interviewees for the exonyms survey originate from the following places: Chinese (Danba County Town; Xinqu), Tibetan (Daofu County Town; Muru, Daofu), Bawang (Jiaju, Danba).

Among the local Chinese, the Geshiza lack a unique and widely used exonym whose scope would exclude all other possible referents. The Han Chinese residing in the Geshiza homeland and in the adjacent County Town call the Geshiza *zàngzú* 藏族 'Tibetan (ethnic group)' and their language *zànghuà* (藏话) or *zàngyǔ* (藏语), 'Tibetan speech, Tibetan language', respectively. The term *zàngzú* is generic and can equally be applied to any ethnic Tibetan group. Equally, *zànghuà* and *zàngyǔ* apply to any language spoken by the regional minorities classified as Tibetan, or to any Tibetan variety in the region as well. The Han ethnicity is in turn commonly referred to as *hànzú* (汉族) 'Han ethnic group)' and the Chinese language to as *hànyǔ* (汉语), Han language, all neutral terms. Consequently, in the context of Sichuan, rather than focusing on exact linguistic reality, the terms *zànghuà* and *zàngyǔ* lay focus on ethnicity, indicating the ethnic categorisation of the referent.

Most of the Han Chinese in Danba lack deep awareness of linguistic differences among the local languages, which leads to frequent conceptualisation of all the non-Tibetic local languages as 'dialects' of one Tibetan language. Also, virtually all interaction between Han and non-Han takes place in Chinese in the region, which results in 'inegalitarian bilingualism'. In inegalitarian bilingualism, one language in much stronger position exerts formidable pressure upon the other (Hagège 2009: 79). The terms *zànghuà* and *zàngyǔ* nevertheless appear neutral and lack any perceived pejorative connotations, further illustrated by the fact that the Geshiza themselves commonly refer to their language as *zànghuà* in Chinese. The terms *zànghuà, zàngyǔ* correspond to Geshiza autoglossonym *bæ-skæ*, literally 'Tibetan language', that contrasts with *rʤæ-skæ* 'Chinese language' (see §1.1.3).

Historically, Tibetans have called the Geshiza, Bawang, and other ethnic Gyalrong groups *rong mi* 'valley dwellers, farmers' (Jeffrey 1975: 49). This neutral ethnic exonym also borrowed into Stau as *rome* remains in use, at least by some elderly. It has nevertheless become generally obsolete among the young. The term *rɟoro* 'Gyalrong' has also reportedly been used among the Stau in reference to the Geshiza. In a similar vein, Amdo Tibetan speakers interviewed in Mosika (Ge; *mæsq^{h}a*; Ch. 莫斯卡; see §1.2.1 Figure 1.2 for a map) reported the term *rong skad* 'Farmer language' to be the standard term when referring to Geshiza language.

Tibetans speaking Tibetic languages generally refer to local languages of the Tibetosphere with two terms: *log skad* 'backwards language' and *'dre skad* 'ghost language'. Both terms are generic and apply indiscriminately to all non-Tibetic local languages not understood by monolingual Tibetic speakers. The terms contain a clear discriminatory nuance, a widely-attested tendency. Exonyms are generally pejorative, rather than complimentary, especially in the case that a real or imagined difference in cultural level exists between the groups Matisoff (1996: xi). An interviewed Amdo Tibetan speaker in Mosika reported that both of the terms apply for Geshiza in addition to *rong skad* discussed above.

Since *log skad* and *'dre skad* exonyms contrast with *bod skad* 'Tibetan language', the implication is that unlike the Tibetic languages, non-Tibetic languages spoken by ethnic Tibetans are not real, proper language at all. Since many Tibetic speaking Tibetans

conceptualise being Tibetan as being able to speak a Tibetic language, depriving the label of Tibetanness from the non-Tibetic languages consequently also questions the Tibetanness of their speakers. In this sense, like the case of Geshiza exonyms used by the immigrant Chinese, the exonyms used by the Tibetans also encode a hidden ethnic dimension, albeit at a deeper, more hidden level.

Since the Geshiza generally lack competence in Tibetic languages, awareness concerning the existence of such potentially discriminatory terms is low. In any case, Tibetan speakers who are aware of the negative nuances in *log skad* and *'dre skad* and wish to avoid offence sometimes replace the two terms with the neutral term *yul skad*, lit. 'local language, language of the region', a general term for smaller languages and lects of the Tibetosphere.

Of all the Horpa lect speaking groups, the Geshiza interact mostly with Bawang people. Since the Bawang inhabit the other side of the mountain range, the two groups call each other's languages in terms corresponding to the Geshiza *qa-ɲo-skæ* (mountain-behind-language) 'language behind the mountains', a neutral and geographically descriptive glossonym. The Geshiza also frequently use the term *bɔvə-skæ* 'Bawang language', yet the Bawang people do not use a geographically based term corresponding to the Geshiza *rgævçetsa-skæ* 'Geshiza language' when referring to the Geshiza language.

1.1.3. Geshiza endonyms

The Geshiza themselves refer to their language with four main terms: *bæ-skæ, ŋæ=ɲi skæ*, *roŋ-skæ,* and *rgævçetsa-skæ*. The frequently used term *bæ-skæ* (corresponding to *bo-skæ* in Western Geshiza spoken around Dandong; see §1.2.1 Figure 1.2) literally means 'Tibetan language' and emphasises the Tibetan identity of the Geshiza speakers. Despite its literal meaning, *bæ-skæ* is rarely used for any Tibetic languages known to the Geshiza that have different names, e.g. *bærə-skæ* for the language of (originally nomadic) Tibetans around the Geshiza homeland. The glossonym *ŋæ=ɲi skæ* in turn literally means 'our language'. The term emphasises the group identity of the Geshiza speakers vis-à-vis outsiders. The Geshiza also call their language *roŋ-skæ* that they currently in Eastern Geshiza interpret to mean 'local language, language of the region'. Finally, the term *rgævçetsa-skæ* 'language of Geshiza (Valley)' is also used as an autoglossonym by the Geshiza. This use emphasises the geographical location of the language and its speakers.

The Geshiza autoglossonyms are best analysed in contexts. Table 1.2 on the following page illustrates the relevant glossonyms and demonyms of Geshiza from the viewpoint of three contrast frames. Both the autoglossonyms and endonyms reflect the identity of Geshiza speakers and invoke an underlying reference group with its perceived opposite, each pair of which represents a distinct and contrasting in 'we' and 'you' dichotomy. Since the emphasised contrast differs in each of the three frames, the speakers' choice of a demonym and glossonym depends on which contrast frame they activate in a given discourse situation. In sum, each chosen self-identification depends on the contrastive other.

Table 1.2. Geshiza demonyms and glossonyms as contrast frames

Contrast frames	Ref. group	Glossonym	Demonym
frame 1:	farmers	*roŋ-skæ* 'local, farmer language'	†*roŋ-pa* 'farmer'
livelihood[10]	nomads	†*mbrɔ-skæ* 'nomad language'	†*mbrɔ-pa* 'nomad'
frame 2:	Tibetans	*bæ-skæ* 'Tibetan language'	*bæ* 'Tibetan'
ethnicity	Chinese	*rdʑæ-skæ* 'Chinese language'	*rdʑæ* 'Han Chinese'
frame 3:	insiders	*ŋæ=ɲi skæ* 'our language'	*ŋæ=ɲi-væ* 'our person'
membership	outsiders	*p^{h}jə-skæ* 'outside language'	*p^{h}jə-væ* 'outsider'

Contrast frame 1 comprising words of Tibetan origin underlines the difference between the farmers (i.e. the Geshiza) and the nomads (i.e. several nomadic Tibetan tribes with whom the Geshiza must have intensively interacted in the past). The dichotomy focusing on livelihood or occupation frames the Geshiza as an agricultural people speaking a farmer language, differing from the nomadic Tibetans both linguistically and in their way of living.

The contrast frame has largely lost its relevance due to severed interactions with nomad Tibetans and changes in the economic structure. The term †*roŋ-pa* 'farmer' has become almost obsolete among Eastern Geshiza speakers. The terms †*mbrɔ-pa* 'nomad' and †*mbrɔ-skæ* 'nomad language' are equally only known to some elderly. The still-used autoglossonym *roŋ-skæ* that belongs to frame 1 has acquired a new meaning 'local language' different from 'farmer language', its etymological source.

In Eastern Geshiza, *leska-pa*, literally '(manual) worker', has become the standard way of referring to an agricultural worker. It contrasts with *ts^{h}æntɕa-pa*, (< Ch. *cānjiā* 参加 'to participate'), a term used for individuals who have a salaried job, typically at a government institution. Taken together, these changes express diminished interaction with Tibetans proper and decreased importance in the formerly dominating farmer-nomad contrast that has been by and far replaced by a new contrast dividing people into two categories of manual labour performers versus people who are participants in the new Han Chinese run economy by earning a stable monthly salary. Against this backdrop, the faded etymological awareness for the glossonym *roŋ-skæ* and its low frequency in current use become self-evident.

Ethnically motivated contrast frame 2 highlights the status of the Geshiza as a part of the Tibetan ethnicity in contrast to the Han Chinese. While the interaction between the Geshiza and Tibetic language speaking Tibetans has diminished, the ongoing intensive influx of Han Chinese into the region means that interaction with them has become a new important external contact for the language communities. The use of *bæ* 'Tibetan' and *bæ-skæ* 'Tibetan language' as the self-referent and autoglossonym respectively conceptualises the Geshiza as a part of the

[10] The terms of contrast frame 1 all originate from Tibetan: *roŋ-skæ* < *rong skad* 'farmer language'; *mbrɔ-skæ* < *'brog skad* 'nomad language'; *roŋ-pa* < *rong pa* 'farmer'; *mbrɔ-pa* < *'brog pa* 'nomad'. It can be argued that the whole frame is based on the farmer vs. nomad distinction present in the Tibetan culture.

larger community of ethnically Tibetan peoples in contrast to *rdʑæ*, the Han Chinese ethnic group.

Contrast frame 3 focuses on membership and is based on the difference between insiders and outsiders. The self-referent *ŋæ=ɲi-væ* means 'our people' and contrasts with *pʰjə-væ* 'outsiders'. The local Han Chinese, especially those whose presence in the Geshiza homeland is temporary, are often included in the contrastive category of outsiders, rather than among the insiders. Also, tourism has brought an increasing number of foreign visitors into Danba County, thus giving the Geshiza more opportunities to interact with people from various backgrounds formerly alien to them. These foreigners, too, fall into the category of outsiders, their languages being generically referred to as either *pʰjə-skæ* or *wæikui-skæ*[11], 'outside language' and 'language of a foreign country', respectively.

Frequently, a glossonym in Geshiza is frequently formed through compounding by the addition of *skæ* 'language' to a well-known toponym, and the strategy is equally applied in the creation of an autoglossonym. In addition to the terms of binary contrast introduced above, the Geshiza also call their language *rgævɕetsa-skæ*, literally 'Geshiza language', although this term surfaces with less frequency in comparison to *bæ-skæ* and *ŋæ=ɲi skæ*. Unlike the cases discussed above, the term *rgævɕetsa-skæ* cannot be placed in a binary model, since it contrasts multilaterally with all other toponym-based glossonyms in the region, e.g. *stæwə-skæ* 'Stau language'[12] and *bɔvə-skæ* 'Bawang language'.

The term *rgævɕetsa* derives from the valley the Geshiza people inhabit. The Geshiza themselves refer to their homeland as *rgævɕetsa-qlo* 'Geshiza Valley'. Like many other Geshiza toponyms, the term originates from Tibetan. The etymology of the corresponding Tibetan *dge bshes (r)tsa* nevertheless remains partially unclear. It is possible that the toponym originates from an ancestral name of the *tusi*-chieftains in Geshiza chiefdom (Meng 1987a: 116; see also §2.8.1 for a brief discussion on the *tusi*-system). Alternatively, a legend traces the origin of the term to a local man who went to study in Lhasa and returned after completing his monastic education with the high degree of *geshe*. The Tibetan term *dge bshes* means 'a holder of a high academic degree in Buddhism'. The second part of the compound name, *(r)tsa*, shows variation in spelling and is more challenging to interpret accurately. The Tibetan *rtsa* has a range of meanings, including 'vein, artery, channel, passageway, place'. In any case, the toponym seems to be historically relatively new, dating back only several hundreds of years. Evidence is lacking as to what, if any, toponym was used for Geshiza Valley in more distant past before the

[11] The term *wæikui-skæ* is a compound, combining a Chinese loan *wæikui* (< Ch. *wàiguó* 外国) 'foreign country' with *skæ*, the Geshiza term for language. The term is becoming the preferred way of referring to foreign languages now.

[12] Tunzhi (2017) recommends referring to the language as rTa'u, rather than Stau, since the former glossonym is perceived to better respect the speakers' desire to self-identify as Tibetans. The term rTa'u is the Wylie romanisation of the Tibetan word referring to the homeland of the speakers. This recommendation is valid and an important contribution from a native speaker of a Horpa lect. Yet, it is less compatible with the typological language naming principles proposed by Haspelmath (2017b), which I have decided to follow here for the benefit of a larger audience. The easily pronounceable term Stau is consequently used in this grammar due to its intended readership.

introduction of the Tibetan-based toponym.

I propose that Geshiza qualifies as the most suitable glossonym to be used for the language under study in this grammar. For the sake of simplicity in written representation and the ease of cross-disciplinary usability, in lieu of the more 'authentic' *rgævʨetsa-skæ*, the present work favours the Chinese Pinyin orthographic form Geshiza (革什扎, 格什扎).[13] The use of special IPA symbols makes the glossonym less accessible, not only due to possible problems in article names and in databases, but also since it is abstruse for many non-linguists and non-recognisable for the Geshiza themselves who are mostly fluent in Chinese and often familiar with Pinyin among the younger generations. The choice of Pinyin here consequently reflects Glottolog editors' principles, namely using only the English alphabet, possibly with diacritics in common use, in glossonyms (Haspelmath 2017b). Moreover, the rendition 'Dgebshesrtsa language' based on the Tibetan toponym *dge bshes rtsa* used for Geshiza Valley would result more alien for the speakers themselves who generally lack a command of Tibetic languages. In sum, of all the autoglossonyms, Geshiza reaches the widest audience and should be adopted in future scholarship.

The glossonym choice partially follows Duo'erji (1997), who called the language the Geshiza lect of the Daofu language (道孚语格什扎话). Nevertheless, the term Daofu/Stau is problematic when referring to Geshiza, since the Geshiza consider themselves a separate ethnic group and mutual comprehensibility between the Stau and Geshiza languages is limited to an extent. The Geshiza speakers interviewed on the issue strongly resist the interpretation of Geshiza as a (dia)lect of Stau and feel that despite an obviously close relationship, their language differs from Stau in significant respects. Also, some speakers express antagonism towards 'Stau primacy'. These speakers rather see Geshiza Valley as the imagined cultural and linguistic *Urheimat* of all the Horpa lects and their speaker populations, resisting interpretations that would place the Geshiza language into a subordinate position vis-à-vis Stau. In any case, using the term Stau in the Geshiza context, be it in the form of 'Geshiza lect of Stau' or 'Geshiza of the Stau language cluster' should be avoided to respect the speakers' self-identification and in order not to establish new hierarchies from the outside where none previously exist.

The following arguments justify the choice of adopting the toponym Geshiza as the glossonym for the documented Horpa lect. First, continuing the use of Geshiza to refer to the language helps linguists familiar with previous research and terminology. In addition to English research literature, the language has been called *géshízā huà* (格什扎话) in Chinese and *geshitsa go* (ゲシツァ語) in Japanese sources, e.g. Duo'erji (1997) and Suzuki (2009a), respectively. A completely new glossonym would unnecessarily complicate the already

[13] The Chinese term *géshízā* (革什扎) is the standard and currently official way to refer to this geographical area, but Duo'erji (1997) adopts the spelling *géshízā* (格什扎) with an alternate initial character, likely reflecting earlier orthography. The Chinese character 扎 has two readings, *zhā* and *zā,* represented as /ʈʂa/, and /tsa/ in IPA, respectively. (More correctly: both syllables *zhā* and *zā* can be represented with the same character). When transcribing the character into Pinyin, *zā* has been adopted, since it more faithfully reflects the actual pronunciation of the toponym. In the English literature, the alternative spellings Geshitsa and Geshenzha are also seen.

complex situation of Trans-Himalayan nomenclature and lead to more confusion (see §1.1.1). Second, the Horpa lect described in the sketch belongs to the Geshiza Valley, and a long research tradition in Trans-Himalayan studies exists with the convention to name a language after a relevant toponym. The term Geshiza thus geographically specifies which Horpa lect is meant by indicating the location where the variety is spoken. The Geshiza themselves can identify with the term and are recorded to use it as a glossonym in the source materials of this grammar. In contrast, adopting one of the three autoglossonyms introduced above in the context of contrast frames is problematic, since similar terms are used by speakers of the surrounding Horpa lects and other small languages of the Tibetosphere as autoglossonyms, which would likely provoke more confusion in a field already fraught with terminological problems.

1.2. Areal context, genealogy, and dialects of Geshiza

This section places Geshiza into areal and genealogical contexts. An analysis of the areal context (§1.2.1) regardless of genealogical factors is followed by remarks concerning the affiliation of Geshiza at the marco-level (§1.2.2) and the language's relationship with other Horpa lects (§1.2.3). The chapter closes with a brief discussion on Geshiza dialects (§1.2.4).

1.2.1. Areal context

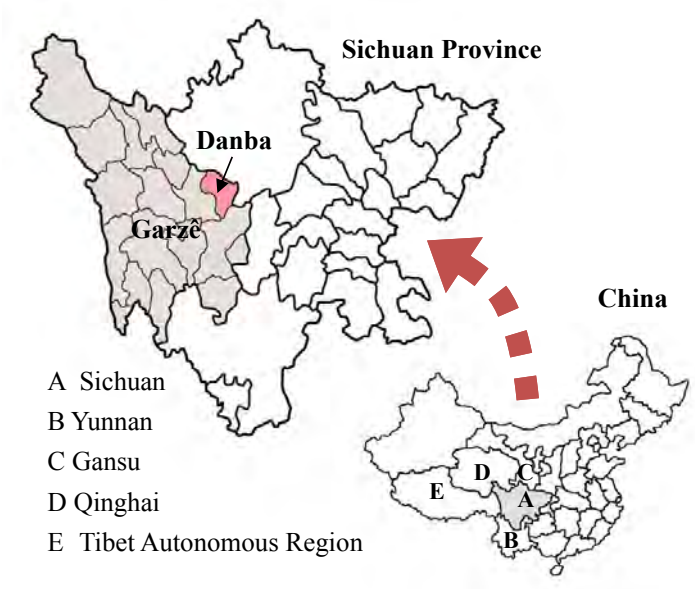


Figure 1.1. Geographical context of the Geshiza homeland[14]

[14] The map is based on a Wikipedia Creative Commons map by Croquant (2007) with modifications in text, colorus, and the arrow symbol used (source: https://en.wikipedia.org/wiki/Danba_County#/media/File:Location_of_ Danba_within_Sichuan_(China).png, license: https://creativecommons.org/licenses/by/3.0/). The small map of Sichuan is further replicated in Figure 1.4.

Regional linguistic diversity

The scope of examined Geshiza's areal context is limited here to the immediate linguistic environment surrounding the Geshiza homeland in Danba County where various other languages are spoken. Eastern Tibetosphere is typically depicted as monolithic and uniform where a single 'Tibetan' language is being threatened by a single 'Chinese' language (Roche and Suzuki 2017). Yet, this characterisation masks the underlying complex linguistic ecology present in the region. On the contrary, Eastern Tibetosphere is a hotspot of linguistic diversity. Tibetans themselves are acutely aware of this linguistic diversity, expressed in the following often-quoted adage:

bla ma re la chos lugs re;
lung ba re la skad lugs re
Each lama has their own teaching;
each valley has its own language.

As illustrated in Figure 1.1 on the previous page, Geshiza is spoken in Danba County that belongs to Garzê Tibetan Autonomous Prefecture in Sichuan Province of the People's Republic of China. The sociolinguistic situation in Danba County is complex and arises from the immigration of heterogeneous groups into the region throughout history. Linguists and anthropologists refer to the mountainous strip of land from southern Gansu (甘肃省) through Sichuan to Yunnan (云南省) as the Ethnic Corridor (of Sichuan). The Corridor is purely a notion of linguistic and anthropological literature, not a geographical formation or a political division visible on a map. In the multicultural and linguistically diverse Ethnic Corridor, the Han Chinese civilisation from the east meets the Tibetan civilisation from the west.

Linguistic prehistory

Diverse ethnic and linguistic groups inhabit this region that throughout history has witnessed both waves of immigration and periods of isolation. The Geshiza count among the various peoples that have made the Ethnic Corridor their home through past migrations. Geshiza habitation in the region has ancient roots and predates the later Chinese and Tibetan immigrations. Suzuki & Nyima's (2016) discovery and elaborating work (2019) of 'Bo skad (Lamo) in Zogang County (左贡县) of Chamdo Prefecture (昌都), possibly a Qiangic or more narrowly, a Gyalrongic language sharing features with Geshiza and other Horpa lects, provides further evidence for this. In other words, the fact that a Gyalrongic language has been preserved at such a distant location from the current Gyalrongic areas indicates that Gyalrongic presence predates the Tibetan migrations into Eastern Tibet. It follows that *inter alia*, both the Geshiza and the neighbouring Stau are indigenous habitants of their respective regions, both with a long history.

Languages of Danba County

An overall picture of the linguistic situation in Danba County is presented in Figure 1.2 below, omitting the widely-spoken Chinese dialects:

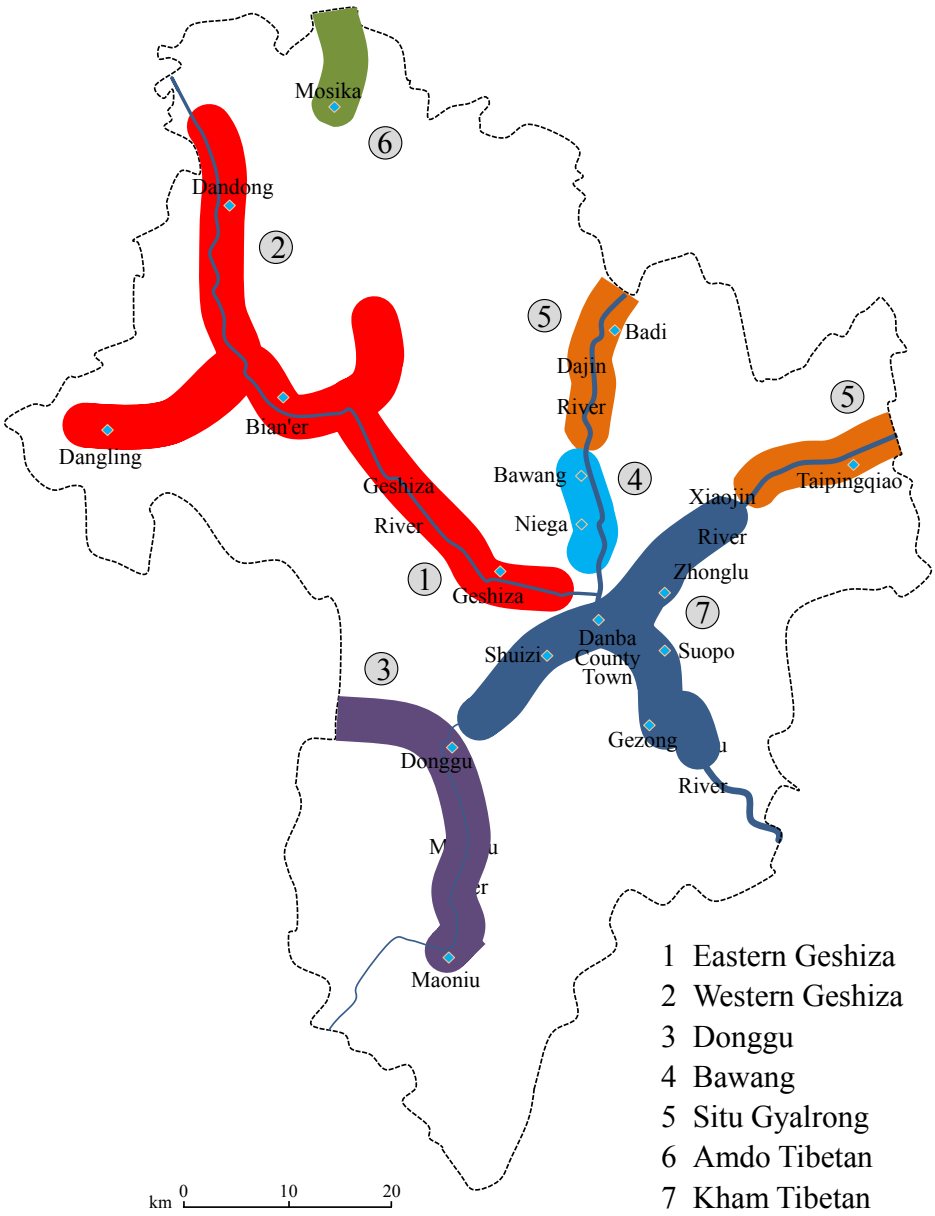


Figure 1.2. Danba County and its non-Sinitic languages[15]

[15] Since no exhaustive survey of all villages in Danba County has been carried out, only approximate locations for the languages and dialects spoken are given. Danba County Town has been marked under Kham Tibetan, the dominant non-Sinitic language spoken in the place. In reality, the County Town is multilingual.

The Ethnic Corridor is rich in languages, all of which belong to the Trans-Himalayan family. In the Corridor, multilingualism at least at a limited level is the rule rather than the exception. Examining the spectrum of languages in Danba, seven different languages, counting the Horpa lects as separate languages, can be identified as being spoken in the County: Kham Tibetan (Tibetic), Amdo Tibetan (Tibetic), Geshiza (Horpa), Bawang (Horpa), Donggu (Horpa), Situ Gyalrong (core Gyalrong) and Chinese (Sinitic) (see Suzuki 2011: 55; Bawang and Donggu added by the author). Of these, the Horpa lects are discussed separately in detail in §1.2.3.

Chinese in the region exists in two principal varieties: local Sichuanese Mandarin and Standard Mandarin. The former still dominates, but compulsory education and mass media push younger generations into using Standard Mandarin more. While Chinese is the mother tongue of only a part of population inhabiting the Ethnic Corridor, namely the Han Chinese, it occupies the positions of a prestige language and lingua franca in interethnic communication. In other words, rather than using a Tibetic language, the residents of Danba generally use Chinese when interacting with speakers from a different language community.

Amdo Tibetan is spoken in the nomadic area of Danba County (own fieldwork data; Suzuki 2011: 55). Contemporary Eastern Geshiza who are valley dwellers and live far from the pastural areas, however, have little interaction with nomadic Tibetans. The situation differs somewhat with Western Geshiza who reside closer to the nomadic areas and thus interact more frequently with Amdo Tibetan speakers, as a result of which some people know Amdo Tibetan. Conversely, some Amdo Tibetans of Mosika have gained a communicative competence in Geshiza as a second language. Among the Tibetan lects, the Geshiza attribute the highest prestige to Amdo Tibetan, the evaluation of which surpasses Lhasa Tibetan with even less direct contact. In addition to prestige, but clearly related to it, Amdo Tibetan is also often characterised as the most 'standard' variety of Tibetan among the Geshiza.

In contrast to the more distant Amdo Tibetan speakers, Eastern Geshiza frequently interact with speakers of Kham Tibetan. A Kham Tibetan dialect termed 'Twenty-four villages' patois' (二十四村话) is spoken approximately in south and west of the Geshiza homeland, including Danba County Town, Suopo (Ge. *sop^{h}o*; Ch. 梭坡), Gezong (Ge. *gəzoŋ*; Ch. 格宗), Zhonglu (Ge. *ʈʂəmnɔ*; Ch. 中路), and Suizi (水子) (Suzuki 2011: 56). The Geshiza interact frequently with these local Kham Tibetan lect speakers. Save occasional intermarriages, this interaction happens in the local dialect of Sichuanese Mandarin.

Situ (四土) Gyalrong, largely synonymous with the term Eastern Gyalrong in the literature, is one of the core Gyalrong languages. In Danba, the language is spoken around Badi (Ge. *brəsti*; Ch.巴底乡), and Taipingqiao (太平桥乡), namely in the eastern and north-eastern parts of the County (Suzuki 2011: 56). Again, when interacting with Situ Gyalrong speakers, the Geshiza use Sichuanese Mandarin as the lingua franca. Even at the level of individual everyday lexical items, most Geshiza have little if any knowledge concerning Situ, an unknown language to them.

1.2.2. Genealogical affiliation

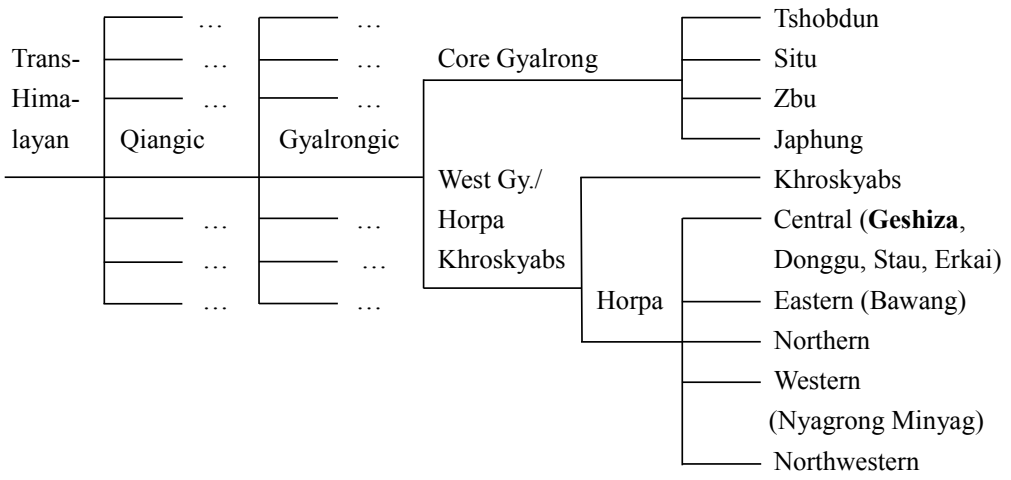


Figure 1.3. Genealogical classification of Geshiza

In the shape of a classical tree model based on the concept of branching, Figure 1.3 above illustrates the position of Geshiza among Gyalrongic languages and the Trans-Himalayan language family. For all its visual clarity, the tree model is sometimes claimed to be problematic, since it fails to accurately represent the dialect continuum-like nature of the lects and the complex language contact backgrounds Gyalrongic languages frequently have. Nevertheless, the model offers an illustrative picture of immediate genealogical environment of Geshiza and has not been superseded by other models of representation (see Jacques and List forthcoming for a defence of the tree model).

Despite major recent advances, Gyalrongic classification remains controversial in part. The tree diagram represents the author's interpretation in the light of previous classificatory research, the terminology being harmonised with that of this grammar. The now generally accepted division of Gyalrongic into core Gyalrong and Horpa-Khroskyabs follows Jacques et al. (2017), Lai (2017), and Sun (2000a; 200b). In turn, division of Gyalrong proper into four languages follows Jacques (2017a; see also Gates 2012 for a model of division into five languages). Finally, classification of Horpa in the tree model follows Sun (forthcoming).

The exact genealogical affiliation of the Horpa lects at both micro and macro level is incompletely understood and will remain a bone of contention for the proximate future. In an initial study of the related Stau Horpa lect, Jacques et al. (2015) propose based on a list of shared innovations that Stau and Khroskyabs (formerly known as Lavrung) constitute a Gyalrongic subgroup. Similarly, Lai (2017: 9) proposes a similar subgroup under the name Khroskyabs-Stau in which Stau is likely to be taken as a shorthand for all Horpa lects.

The validity of dividing Gyalrongic into core Gyalrong and the rest, i.e. Horpa-Khroskyabs, can be substantiated. Citing data from Wobzi Khroskyabs and Khang.gsar Stau,

Lai (2017: 9) shows that while both Khroskyabs and Horpa have undergone desyllabification of the prefixes *s-, ʏ-, ʁ-*, the same remain in a full syllabic form in Japhug, a Gyalrong language. Thus, regardless of the exact nature of Horpa-Khroskyabs subgrouping that clearly needs more research, the Horpa lects and Khroskyabs are demonstrably related to the core Gyalrong languages, together with which they all form the Gyalrongic language branch. Stem alternation (see §4.3.5.3) attested both in Horpa-Khroskyabs and Gyalrong consolidates the groups' genealogical relatedness (see Sun forthcoming).

The Gyalrongic languages are interpreted to belong to a Qiangic branch of Trans-Himalayan, originally proposed by Sun (1962). The Qiangic languages are characterised by orientation prefixes, complex consonant clusters, large consonant inventories, and frequent loss of Proto-Trans-Himalayan final consonants. The Qiangic hypothesis postulates a common origin for approximately thirteen languages in the Ethnic Corridor of South-Western China. Following the hypothesis, the Gyalrongic languages are thus closely related to languages, such as Pumi, Muya, Queyu, Qiang, and the extinct Tangut (Jacques 2017a: 583).

The Qiangic hypothesis has come under criticism. The hypothesis in its present forms suffers from a lack of proposed shared innovations, a noticeable exception being Matisoff (2004) discussing 'brightening', namely a vocalic change *a > -i as a shared innovation among the Qiangic languages. Against the hypothesis, Chirkova (2012) states that the supposed genealogical features on which the subgrouping hypothesis builds on result from areal diffusion. Consequently, according to the critics of the Qiangic approach, Qiangic constitutes a linguistic area, not a valid genealogical unit. On the other hand, some recent work, notably Sagart et al. (2019) and Zhang et al. (2019), offer support for (Burmo-)Qiangic as a genealogical subunit.

At the highest level, Geshiza belongs to the Trans-Himalayan language family. George van Driem introduced the term in 2004 to provide a geographical label for the language family called variously as Tibeto-Burman and Sino-Tibetan. Trans-Himalayan (*trans-* used in the sense 'across') neatly captures the geographical dimensions of the language family, somewhat similarly to Indo-European and Afroasiatic in other geographic contexts. Since its coining, Trans-Himalayan has been gaining ground as a more neutral phylogenetic macro level label, and the term is adopted in the present grammar instead of Tibeto-Burman and Sino-Tibetan. The reasons behind the decision are discussed below.

The relationship between the Sinitic, Tibetan, and Burman languages has been under great debate. Tibeto-Burman is sometimes seen as a branch of the Sino-Tibetan language family, the standard division of which follows Thurgood & LaPolla (2003) in subdividing the member languages into Sinitic and Tibeto-Burman branches in a binary fashion. Other scholars have provided different alternative models for Sino-Tibetan subdivisions. For instance, Benedict (1972a) divides the Sino-Tibetan language family into Sinitic and Tibeto-Karen, Tibeto-Karen further branching into Karen and Tibeto-Burman.

Regardless of their details, all models of Sino-Tibetan subdivision treat Chinese as a separate entity contrasting with everything else in a separate branch. Nevertheless, decisive

evidence for the binary division in terms of shared innovations that set all non-Sinitic languages apart from Sinitic languages as a subgroup or vice versa, is lacking (van Driem 2008: 225; Owen-Smith and Hill 2014: 4). Also, the term Tibeto-Burman is ambiguous, since it is used both as a macro level label to the language family known to others as Sino-Tibetan and to refer to a putative branch comprising all non-Sinitic languages by the proponents of the Sino-Tibetan model (van Driem 2014: 16). Consequently, for the sake of adopting a neutral stance from the viewpoint of all speaker communities not reducible to Chinese, Tibetans, and Burmans, and to avoid confusion arising from terminology, the present work adopts the term Trans-Himalayan.

1.2.3. Geshiza and other Horpa lects

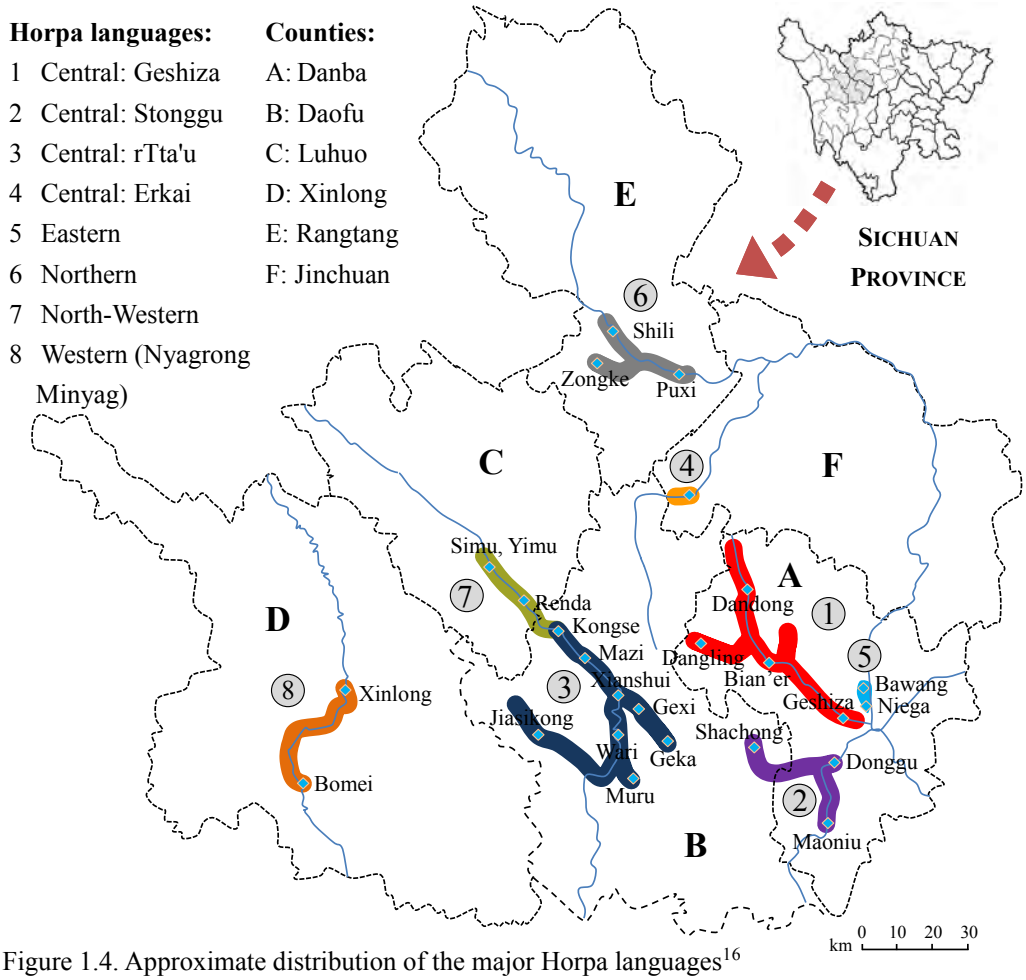


Figure 1.4. Approximate distribution of the major Horpa languages[16]

[16] Since no exhaustive survey of all villages in the region has been carried out, only approximate locations for the languages' core areas are given in the map. Core areas here refers to the space, such as villages with the surrounding space including fields etc., where most daily activities take place. The estimations are based on a synthesis of the author's own fieldwork (Central and Eastern Horpa) and previously published sources: Bkrashis (2012, Western); Gatehouse (2019, all); Sun (2000b, Northern; forthcoming, all); Van Way (2018, Western).

Geshiza with altogether approximately 8000 speakers is closely related to several other Horpa lects spoken primarily in river valleys of adjacent counties of central-western Sichuan that are separated from each other by mountain ranges. The research community has yet to reach consensus on the two issues of the exact number of Horpa lects and the nature of their relationship. The history of the Horpa lects is scarcely known and no reconstruction of the Proto-Horpa language has been yet attempted. Also, due to scarcity of sociolinguistic surveys on most Horpa lects, no reliable estimates concerning the total amount of Horpa speakers exist. Citing an estimation of Shearer and Sun (2002), Ethnologue (2019) reports the size of the Horpa speaking population as 45000. The figure that may be excessive under the current circumstances may be taken as the best available estimation concerning Horpa speakers' demographics.

Jacques et al. (2015, 2017) state that at least three mutually unintelligible Horpa lects exist: Stau (Stau), Geshiza (Dgebshes) and Shangzhai (Stodsde). Of these, Stau is primarily spoken in the Daofu County (Ge. *stæwə*; Ch. 道孚县), Geshiza in Danba County, and Stodsde in Rangthang County (壤塘县). Sun (forthcoming) divides the Horpa lects into five groups with geographical names: Central Horpa in Daofu, Danba, and Jinchuan (金川) Counties, Northern Horpa in Rangtang County, Western Horpa in Xinlong County (Ge. *ɲəuroŋ*; Ch. 新龙), North-Western Horpa in Luhuo County (Ge. *xər-braŋgu*, *luxo*; Ch. 炉霍), and Eastern (Danba County). Reflecting on the model, existing literature, and the author's fieldwork experience, Figure 1.4 on the previous page illustrates the distribution of the major Horpa languages.

In Sun's model[17], Geshiza constitutes a dialect of Central Horpa together with Stau, Upper Stongdgu (Ge. *stəŋwə*; Ch. 上东谷; Donggu in this grammar), and Horpa lects spoken in western Jinchuan County, termed here Erkai (二楷) Horpa. While being inarguably the most accurate and reliable classification this far, further illustration of used evidence is needed for the classification. Also, classifying Geshiza and Stau as dialects of a language, rather than languages of their own right, is problematic. Despite striking similarities, differences abound in the phonologies, grammars, and lexicons of the two putting limits to mutual comprehensibility without adaptation. The speakers also feel they speak distinct languages. Finally, as an alternative glossonym, van Way (2018) uses Nyagrong Minyag for Western Horpa of Sun (forthcoming), not to be confused with Minyag (Muya), a Qiangic language

In any case, prior to documenting all Horpa lects at least to a preliminary level, establishing their exact mutual relationships based on shared innovations remains challenging. From the viewpoint of mutual comprehensibility among major Horpa lects, Geshiza stands closest to Upper Donggu and Stau, these possibly followed by the adjacent Bawang. Among Stau, the closest are the dialects most closely connected to Geshiza Valley by means of transport networks and history, such as Gexi (Ge. *rgeɕe*, variation in pronunciation; Ch. 格西). In

[17] Recently, Sun (personal communication, June 25 2019) has expressed that a tripartite model for classifying the Horpa lects could be adopted. This model consists of Central Horpa and the two other geographical extremes. Looking at both geographical factors and grammars of the Horpa lects, this tripartite model offers at the moment the best framework for our initial approaches of historical-comparative Horpa studies. Advancing research will likely further clarify the internal relations of the Horpa lects.

addition to Geshiza Valley, Gexi and Shachong (Ge. *ɕʰæʤoŋ*; Ch. 沙冲) in Donggu were historically controlled by Dandong chieftains (see Meng 1987a: 115). This provides yet another hint concerning past interaction, which also likely had linguistic repercussions.

Following Geshiza-Bawang interaction in Danba County Town during this project, mutual comprehension seems asymmetrical. Bawang speakers understand more Geshiza than vice versa, a finding also mentioned by Sun (forthcoming). At least a part of Bawang speakers are able to adapt their language to make comprehension easier for Geshiza speakers. On the contrary, Geshiza consciousness of the Bawang language is generally limited and may be restricted to several individual everyday words in Bawang. As a result, many speakers resort to using their home Geshiza dialect when interacting with Bawangers. They code-switch into Chinese when this is necessary. This limited functional comprehensibility between Geshiza and Bawang in basic domains at least partially results from frequent interaction between the two adjacent linguistic communities and cannot by itself be used independently as evidence for subgrouping. Nevertheless, the close geographic proximity of the two hints that they likely have a strong historical bond.

1.2.4. Geshiza dialects

Seen at the highest level, Geshiza has two major identified dialects: Eastern and Western Geshiza divided along geographical lines (see Figure 2.1 on page 47 for an overview of the geography of Geshiza Valley). In contrast to Eastern Geshiza at the Eastern end of Geshiza Valley, Western Geshiza is spoken at the opposite, north-western end of the Valley around the regional centre Dandong (Eastern Ge. *mdæmdo* ~ *ndæmdo*; Western Ge. *mdæmdu*; Ch. 丹东) and the surrounding areas. In a preliminary analysis, Geshiza varieties downriver (i.e. towards Danba County Town) from Bian'er (Ge. *spjar*; Ch. 边耳) are defined as Eastern Geshiza, the remaining varieties upriver being classified as Western Geshiza. This reflects historical divisions of Geshiza Valley (see §2.8.1 on the split of Dandong-Geshiza Chiefdom in 1776). More research on the issue is nevertheless needed. Even the possibility for a dialect continuum cannot be ruled out until all major Geshiza varieties have been surveyed, a task not attempted in the confines of the present description.

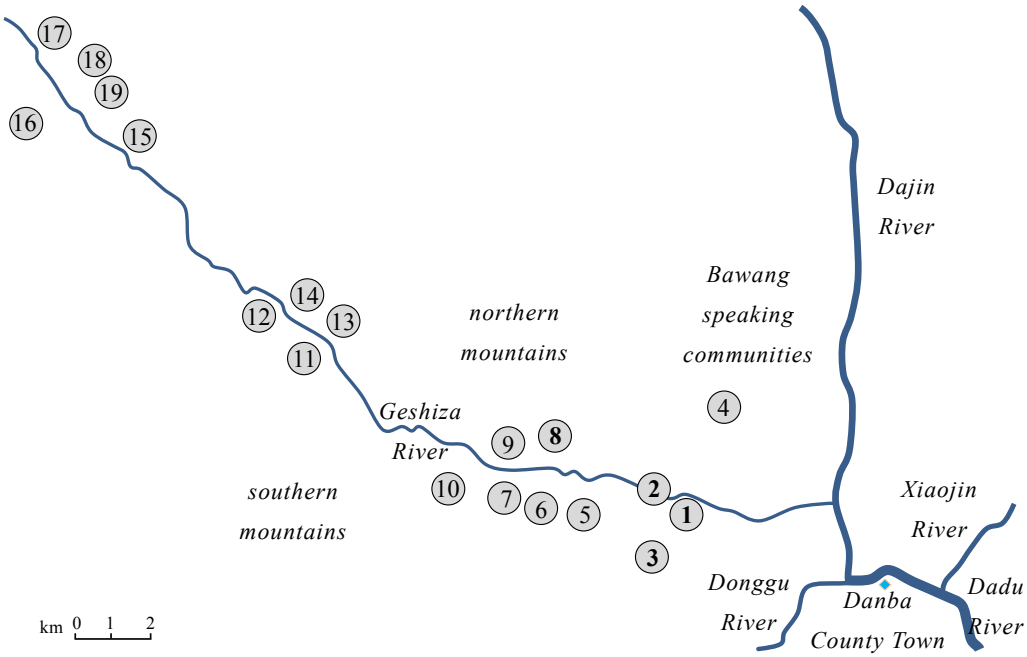
Despite noticeable differences in phonology, lexicon, and grammar, the two Geshiza varieties stand in a dialectal relationship with partial mutual comprehension. Speakers of Eastern and Western Geshiza generally communicate with each other in their native lects, since exposure to each other's dialects due to frequent migrant labour and intermarriage facilitates mutual comprehension. Speakers of Western Geshiza seem to find it easier to understand speakers of Eastern Geshiza than vice versa. This likely arises from the Western Geshizas' exposure to the variant of the language spoken closer to the County Town, the regional centre of migrant labour, education, and commercial activity.

Table 1.3. on page 21 at the end of this section shows similarities and differences among Eastern and Western Geshiza lexical forms. It should be noted that most of the illustrated sound

correspondences are not universal between the dialects, but mere examples of existing patterns, the details and conditions of which remain to be analysed in future comparative work. Several features of Western Geshiza appear clearly as more archaic, for instance, the retention of the palatal plosives (*c, c^{h}, ɟ*) that have evolved into affricates (*tɕ, tɕ^{h}, dʑ*) and thus merging with this already existing consonant group in Eastern Geshiza, yet similarly retained as palatal plosives in Stau. Higher degree of isolation and remoteness from other regional centres, such as Danba County Town, undoubtedly play a role in the retention of these features in Western Geshiza.

Eastern Geshiza forms a relatively homogenous linguistic variety at the eastern part of Geshiza Valley. Figure 1.5 on the following page shows the easternmost Valley and major Eastern Geshiza speaking communities. The official division of Geshiza into 18 villages is followed in the figure, but the Chinese political divisions do not always correspond to the pre-existing Geshiza ones before the region became part of the PRC in 1950. The recently abandoned mountain community †Masuo (see §2.2.1) is also included for reference. The names of all communities where fieldwork was conducted are written in bold.

Speakers from eastern Geshiza Valley, for e.g. from Balang, Xishua (Ge. *ɕiɕua;* Ch. 西刷), Buke (Ge. *bəq^{h}o;* Ch. 不科), and Ka'erjin (Ge. *mk^{h}ærɕə;* Ch. 柯尔金), rarely have serious difficulties in mutual comprehension. They thus use Eastern Geshiza in lieu of Sichuanese Mandarin in intra-village communication and identify themselves as speakers of the same language. Minor variation in Eastern Geshiza is nevertheless present. In most cases, such variation rarely causes any problems for smooth communication. On rare occasions, minor problems of communication nevertheless occur. For instance, a slight phonological difference caused serious misunderstandings in inter-village communication in one case witnessed by the author. The word 'story' exists several forms in dialects of Eastern Geshiza, e.g. *snote*, and *snoti*. Two Eastern Geshiza speakers (one from Balang, second one unidentified) had to code-switch into Sichuanese Mandarin, since the word 'story' had a different vocalic coda in their lects, leading into temporary breakdown of comprehension triggered by this keyword at the discourse context.



Number codes for villages:

1 Balang (巴郎, *bəra*)
2 Buke (布科, *bəqʰo*)
3 Xishua (西刷, *ɕiɕua*)
4 †Masuo (麻索, *mæso*)
5 Jiniu (吉牛, *dzæɲo*)
6 Luo'er (洛尔, *ɑlovær*)
7 Eluo (俄洛, *ŋuələ*)
8 Ka'erjin (柯尔金, *mkʰærtɕə*)
9 Zhuosini (卓斯尼, *dzosni*)
10 Angu (安古, *bəgu*)
11 Leilei (累累, *luzlə*)
12 Dasang (大桑, *stɔsən*)
13 Waba (瓦坝, *wapa*)
14 Jiru (吉汝, *dʑirə*)
15 Tuopi (妥皮, *tʰobji*)
16 Qiangjin (前进, *ɑʑəu*)
17 Wazu (瓦足, *watɕo*)
18 Wajiao (瓦角, *ɑdo-væ*[18])
19 Sandaoqiao (三道桥, *sæntəutɕʰiəu*)

Figure 1.5. Geshiza-speaking villages in eastern Geshiza Valley

[18] Demonym; see *Appendix III: List of toponyms and religious loci* for details.

Table 1.3. A sample of lexical items in Eastern and Western Geshiza

Pattern	Eastern (Balang)	Western (Erdaoqiao)	Gloss
i : i	*ŋi*	*ŋi*	to be acceptable, all right
	dzi	*dzi*	food
	v-t^{h}i	*v-t^{h}i*	to drink
e : e	*ʂŋe*	*ʂŋe*	seven
	spe	*spe*	incense
	tɕe	*tɕe*	hat
æ : æ	*mæ*	*mæ*	rain
	rtsæ	*rtsæ*	deer
	wmæ	*wmæ*	wound
a : ɔ	*dʑa*	*dʑɔ*	tea
	lva	*lvɔ*	ice
	zjar	*zjɔr*	heart
ɔ : a	*ʑjɔ*	*ʑja*	yak
	ɕɔvə	*ɕavə*	paper
	stɔ	*sta*	Tiger
o : u	*lo*	*lu*	to be hot
	rko	*rku*	leg, foot
	ʑo	*ʑu*	tasty
u : ə	*nunu*	*nənə*	breasts
	lmu	*lmə*	hailstone
	ws^{h}u	*xs^{h}ə*	three
ə : ə	*bəʑə*	*bəʑə*	boy, son
	dʑədə	*dʑədə*	book
	tsələ	*tsələ*	cat
dʑ : ɟ	*dʑi*	*ɟi*	animate existential verb
	rdʑæ	*rɟæ*	Chinese
	rdʑe	*rɟe*	to be plentiful, abundant
tɕ(^{h}) : c(^{h}),	*gæ-tɕ^{h}æ*	*gæ-c^{h}æ*	big
	tcɔ	*cɔ*	to be pleasant
	vtɕə	*vcə*	mouse
non-systematic	***bə**t^{h}a*	***bə**qlaŋ*	stick
differences	***gə**ɕ^{h}o*	***gə**zə*	evening
	***rgæ**-væ*	***rgæ**-mæ*	stone
different	*kærku*	*ɟæl-ɣæ*	window
lexemes used	*mdʑə*	*ŋgre*	dance
	snoti ~ snote	*k^{h}api < k^{h}a.api*	story

1.3. Methodology and previous research

This section addresses the methodology applied in this grammar together with previous research on Horpa lects and closely related languages. The discussion is divided into an overview of descriptive linguistics and linguistic fieldwork (§1.3.1); documentation methodology and sources (§1.3.2); ethical statement (§1.3.3), state of research and documentation of the Horpa lects (§1.3.4); and research and documentation of related languages (§1.3.5).

1.3.1. Overview of descriptive linguistics and linguistic fieldwork

In a narrow sense, descriptive linguistics aims to describe individual languages with highest possible rigor based on naturalistic corpus data collected within the broader frames of language documentation, to ensure the documentation all linguistic structures (Evans and Dench 2006: 3). Against this backdrop, descriptive linguistic fieldwork constitutes a common pathway to pursue language description. In addition to descriptive goals, linguistic fieldwork can also be done to substantiate theoretical claims (Chelliah and de Reuse 2011: 21).

Chelliah and de Reuse (2011: 7) define descriptive linguistic fieldwork as 'investigation of the structure of a language through the collection of primary language data gathered through interaction with native-speaking consultants'. Actual fieldwork can vary in a continuum between the extremes of prototypical and non-prototypical (Sakel and Everett 2012: 1-2). Prototypical fieldwork concerns analysing a language other than one's native language within a community of speakers in their native land (Everett 2001: 168). For instance, fieldwork among an indigenous community for an extended period of time ranks higher in the prototypicity cline than short-time ex-situ fieldwork.

Comprehensive history of linguistic fieldwork remains to be written. Its origins in the Western tradition are linked to colonisation and especially to missionary activities. Before the late eighteenth century, Christian missionaries almost exclusively dominated the research on unknown languages resulting in grammars and dictionaries (Hymes 1963: 65). These first works generally exhibit considerable Latin influence in grammatical description, since the language was considered the model of clarity and perfection. Also, rather than aiming for description for the sake of itself, the missionary descriptive work was often carried out to facilitate evangelisation of non-Christian peoples. From the seventeenth century onwards, parallel with the missionaries 'gentleman scholars', such as colonial administrators, military personnel, and travellers, also got engaged in language documentation.

Together with the rise of Chomskyan linguistics, the status of field linguistics was temporarily relegated to largely unnecessary, yet harmless 'butterfly collecting', even though field linguistics continued be practiced through the era dominated by the Chomskyan approach. In recent decades, due to increased attention to language death and endangerment, description of unknown languages has been regaining its proper place at the heart of the linguistic enterprise.

Linguistic fieldwork prior to the twentieth century left regrettably little metadata on the methods, techniques, procedures, and informant relations (Chelliah and de Reuse 2011: 7). This makes it difficult to understand actual fieldwork techniques behind grammatical descriptions surviving from the era. Also, another vocal point in the history of linguistic fieldwork is the changing relationship between the researcher and the community. While earlier fieldwork was often unidirectional, benefiting only the scholar, and suffered from ethical problems, contemporary fieldwork puts focus on ethical practices and emphasises a cooperative and reciprocal relationship between the community and the researcher.

The outputs of linguistic description often take the form of grammar, occasionally accompanied by dictionaries and text collections, the set of which is referred to as the 'Boasian trilogy' (Evans and Dench 2006: 10) or occasionally as the 'holy trinity' (Hammarström 2007: 15). Description can also lead to more applied outputs, such as pedagogical materials and learners' dictionaries for the communities. Language documentation and description has been and remains extremely decentralised (Hammarström 2011: 33). This makes estimating the number of existing resources challenging. Fundamental grammatical descriptions exist for approximately 2000 of the world's languages (Hammarström 2007: 17-20). As of 2019, Ethnologue lists 7111 languages and Glottolog 7395 spoken languages. Given that between 7000 and 8000 languages exist at present, the share or available grammatical descriptions that are both reliable and extensive represents a clear minority of all languages. The fact that many, if not most, languages are expected to become extinct in this century has made the description of undocumented languages an immensely important and urgent matter.

In addition to purely linguistic results, such as providing more raw material for typological research, the outputs of linguistic fieldwork also contribute towards what Hastrup (1995: 44) defines as the greatest challenge and objective of anthropology, namely to 'recover disappearing epistemologies'. Since a language reflects the whole linguistic ecology of its speakers, language death or language shift often results in a loss of an epistemology, a potentially hitherto unknown way of knowing and being. In tandem with this, a great deal of knowledge, for instance traditional ethnomedicinal practices, falls into permanent oblivion. Consequently, in the broader view, the responsibility to describe and document languages transcends the narrow disciplinary borders of linguistics.

1.3.2. Documentation methodology and sources

This grammatical description is based on primary language materials obtained from Geshiza speaker communities through linguistic fieldwork. These materials are henceforth called source materials. They consist of a corpus attempting to capture a wide range of speech genres in a form as natural as the research circumstances permitted and elicitation. Approximately eight months of immersive *in situ* fieldwork were conducted for the project during 2015-2018. The fieldwork was primarily carried out at Balang Village (Ge. *bəra groŋ;* Ch. 巴郎村) in the Danba County of the PRC, the data of which was complemented with research in the surrounding

villages. Balang Village is located in the Geshiza Valley, close to the Danba County Town that serves as the seat of the County. In 2015-2019, comparative Stau lect data was collected from Dharamshala in India, and *in situ* from Daofu County Town（鲜水镇) in the PRC.

Intensive approach to fieldwork

Eastern Geshiza, namely Geshiza spoken in Balang and in the surrounding villages serves as the primary object of description in this grammar. No description of a broader diasystem is attempted in the current work. Focus on 'immersion fieldwork', namely taking part in the daily life of a community and becoming integrated into it while learning the language and observing its use in the community (Aikhenvald 2007a; Dixon 2007) stands at the core of data gathering in this grammar. The author stayed with local community members during the fieldwork, sharing the house and observing the cultural aspects of the speaker community and participating in their daily activities to an extent it was desirable and socially acceptable. Except at the beginning when I also used Chinese in a limited fashion, the fieldwork was mostly monolingual in Geshiza, but Chinese played a supplementary role in confirming lexical semantics of individual lexical items through translation during the whole project. When Chinese was used at the beginning, the author spoke Standard Mandarin and the consultants mostly used Sichuanese Mandarin only partially understood by the author. When consultants were literate, Written Chinese was also infrequently used. In all, inability to sufficiently understand each other's form of Chinese acted as a major impetus for monolingual fieldwork.

Fieldwork methods and data collection

This grammar's source materials were primarily obtained through participant observation, recordings of speech, and monolingual elicitation. In the ecolinguistic survey (see chapter 2), participant observation, numerous monolingual ethnographic interviews, and the corpus of recordings were used, supplemented with relevant Tibetological and anthropological literature. In addition to limited video recordings, audio-only recordings covering a wide range of genres were made during fieldwork. This served a double objective, namely capturing the primary speech genres of the Geshiza on which to build the grammatical description, and to document a part of the speakers' culture, including folklore, oral histories, customs, and beliefs. I hope that in addition to linguists who primarily focus on the language itself, the present work and its future outgrowths can also benefit researchers active in other disciplines, such as Tibetology, anthropology, and mythology studies.

The recorded narrations were supplemented with monolingual elicitation strategies, such as substitution elicitation, and grammaticality judgements, both of which helped in filling paradigm gaps and establishing the shapes of grammatical categories. In such cases, the original pattern to be modified in elicitation has always been obtained from a non-elicited context. Pictorial stimulus-driven elicitation, namely the use of pictures as stimuli in fieldwork (Chelliah and de Reuse (2011: 369), was used for mapping the lexicon of Geshiza, not for grammatical

topics. Early on, most stimulus kit resources, such as the 'Frog Story' (Mayer 1969), proved to be of limited use among the Geshiza due to cultural reasons. Their presence as a source type is consequently marginal in this grammar. The grammatical description aims to portray Geshiza as how it is actually spoken, not as how it theoretically could be spoken. Consequently, elicitation through translation of sentences is omitted.

Statistical overview of data

Including comparative data from other Horpa languages and Tibetic languages spoken close to the Geshiza homeland, altogether 125 gigabytes of source materials were collected. The source materials cover recordings (approx. 115 hours after excluding overlap when recording with more than one device simultaneously), pictures (approx. 5500), and digital fieldnotes on grammatical, lexical, and cultural topics. Example sentences selected for this grammar originate from approximately four hours of speech transcribed and annotated in ELAN[19] together with consultants. Occasionally, examples in the grammar are also drawn from the other parts of source materials, such as serendipitous overhead utterances, utterances addressing the author, and tens of hours of non-transcribed interview data in which the author interacts monolingually with Geshiza speakers, e.g. asking them to talk on a topic or to create examples that illustrate a grammatical pattern for which a lacuna exists in the naturally occurring sources.

The statistical composition of the transcribed and annotated sources from the viewpoint of their genres is shown in Table 1.4 below. See §15.1 for a dedicated discussion on speech genres of the Geshiza language community; no speech genres restricted to languages other than Geshiza are presented in this grammar. Often a transcribed and annotated recording crosses across several genres, which makes its classification somewhat artificial. Together with my improving linguistic skills in Geshiza, the collection of the source materials chiefly moved from easily analysable genres towards the challenging ones, i.e. from chronicles and procedures to folktales and finally to everyday conversation.

Table 1.4. Transcribed source materials used in the present grammar

Genre of recording	Length (h)
Oral artforms (mainly folktales)	1h 26 min
Local and personal histories	31 min
Procedures	18 min
Chronicles	46 min
Ethnographic descriptions	30 min
Conversation	35 min
Total	4 h 6 min

[19] https://tla.mpi.nl/tools/tla-tools/elan/

Gaps and insufficiencies in the source materials

Language description is a highly idealised cultural practice, yet while anthropologists have discussed problems of ethnography, anthropology's equivalent to language description, the issue has in general received little recognition among linguists (Foley 2003: 86). Different from modern anthropologists discussing their own subjectivity with ease, linguists tend to emphasise their work's universal objectivity while remaining tight-lipped on inherent problems present. Also, linguistic descriptions tend to rely on unbalanced corpora that emphasises the local cultural equivalents of coherent literate text types, such as folktales, in their description.

Self-examining from the viewpoint of problems in methodology and sources present in this work, the following can be said. While striving for a 'rich description' including the widest possible range of genre materials in their cultural contexts, this grammar also reflects some biases encountered in linguistic literature. To illustrate, narrative data remains overrepresented vis-à-vis its actual proportion among the Geshiza. Even though 46 minutes of chronicles have been included in the source materials, it is relatively rare for the Geshiza to relate the events of a day, for example, in a non-interactive chronological monologue. On the other hand, among others, genres such as curses that play a fundamental genre in most human speech communities, are hardly present in the non-elicited source materials, even though a verbal duel of exchanged expletives is by no means is less important a source material than a traditional folktale. Biases of this work are not due to intention, rather than a result of ethical concerns and ease of access. Occasionally, linguistically interesting discourse situations encountered during the field trips were simply socially or ethically unacceptable to record. To illustrate, some but not all storytellers expressed their wish to exclude from recording the linguistically highly interesting natural conversations often following the narration of a folktale.

Examples

The examples follow the three-line standard format with the original Geshiza, glossing, and an English translation with metadata, as illustrated in (1.1). Aiming at a user-friendly representation with compact and easily readable examples, morphemes are only segmented up to a level deemed appropriate at a given context, especially when they are historical. For instance, the historical repetitive suffix *-IV ~ -rV* (see §6.2.3.10) used for non-productive category-maintaining derivation is not glossed separately from its host verb, except in contexts where its separation clearly provides additional value to the reader, e.g. when discussing derivation. Also, 'cranberry morphemes' are generally not separated: e.g. *-roro* '?' in *ætɕʰə-roro* 'whatever' that contains the identifiable pro-form *ætɕʰə* 'what'. Finally, due to polysemy, a single morpheme is occasionally glossed in different ways in different discourse contexts.

(1.1) *Geshiza original in IPA*
glossing
Translation (metadata coding: specification; possible cultural cross-references)

For the convenience of the reader, Chinese loanwords are indicated in the glossing. Like many other minority languages of China, Geshiza is currently being heavily influenced by Chinese, a topic discussed in chapters 2 and 14. Following Lai's (2017) description of the related Wobzi Khroskyabs language, Chinese elements identified in the Geshiza source materials have been inserted inside curly brackets in the offered glossed examples: e.g. <*fæntɕʰue*> 'tomato', a borrowing of *fānqié* 番茄 'tomato'. In contrast, Tibetan loanwords that the Geshiza are generally unable to identify and consider a part of their language have not been highlighted in the glossing.

Coding example metadata

Dwyer and Mosel (2001) provide a useful system for recording metadata for descriptions of spoken language divided along three parameters: interactivity, consultant, and researcher. In terms of interactivity, a speech event may be *non-interactive* (e.g. song), *semi-interactive* (e.g. narration of a traditional story with interjections from listeners), or *interactive* (e.g. a conversation) between the participants. Consultant communication structuredness varies between *planned* (e.g. a speech), *semi-spontaneous* (e.g. a folk story requested by a researcher), and *spontaneous* (e.g. a conversation). Finally, research involvement can be described as *elicited*, *non-elicited* (researcher present in the speech event, but not participating verbally), and *non-observer* (researcher absent, recording through a device left in the space where the speech event occurs). Not all the possible combinations appear in the source materials of this grammar. At the same time, different paradigms frequently overlap. Consequently, a simpler classificatory system based on the model of Dwyer and Mosel (2001) illustrated above is adopted here. Five letter-coded labels described below illustrate the source and metadata of the examples used in this grammar. Two additional codes are used, discussed on the following page. Number coding is given in parenthesis to express the estimated naturalness of a given label in a scale from 1 (lowest) to 5 (highest). When necessary, the primary codes are specified with more detailed tags at the end of the examples, e.g. folktale, joke, phone call, or folktale. For cultural anchoring, cultural cross-referencing is occasionally given in the metadata to help the reader locate a relevant section discussing an aspect of the Geshiza culture that has surfaced in an example.

MEE **monolingually elicited example (1)**
(*interactive, semi-spontaneous, elicited*)
The author gives a stimulus, e.g. a Geshiza word or phrase, to the consultant who in turn generates one or several example utterances of his or her preference. Unrequested examples of imaginary contexts offered by the consultants during fieldwork sessions are also included in the category, since they are nevertheless prompted by less natural interaction between the author and the consultant. Also, excerpts from monolingual interviews in which the author controls the speech event and interacts with the Geshiza are also included in this category.

RN **recorded narrations (2)**
(*non-interactive or semi-interactive, semi-planned, non-elicited*)
Narrations comprise speech events produced especially for research purposes, ranging from retold traditional stories, accounts of local history and legends to auto-biographical reminiscences, procedures, and sayings. The author is present in the recording event, sometimes with other assistants whose intermittent participation frequently makes the event semi-interactive. In contrast, the author's linguistic participation in the event is minimal.

UA **utterance primarily addressing the author (3)**
(*interactive, spontaneous, non-elicited*)
The author heard an utterance and wrote it down with its context. Even though other people may have been present, the author was the primary addressee. Unlike in monolingual interviews (MEE), the author had no control of the speech event.

OU **overheard utterance addressing another person besides the author (4 ~ 5)**
(*interactive, spontaneous, non-elicited*)
The author heard the utterance and wrote it down with its context. Another person or people were the primary audience of the utterance, but on some occasions, the speaker has been conscious that also the author was present at the event, even though this is not constant.

RC **recorded conversation (4 ~ 5)**
(*interactive, spontaneous, non-elicited or no observer present*)
Conversation recorded with the author typically absent from the stage, or in a marginally accessible place, such as an adjacent room. At least initially, the speakers are conscious that their speech is being recorded by the equipment placed in front of them. The coding class comprises both natural and stimulus-based conversation, the latter of which scores lower in naturalness.

ACC **accepted modification (judged grammatical)**
The author modifies an existing phrase or sentence in terms of a single grammatical category, e.g. by changing the aspect from perfective to imperfective. The consultant repeats and accepts the product, judging it grammatical.

REJ **rejected modification (judged ungrammatical)**
The author modifies an existing phrase or sentence in terms of a single grammatical category, e.g. by changing the aspect from perfective to imperfective. The consultant rejects the product and judges it ungrammatical.

1.3.3. Ethical statement

Contemporary linguistic fieldwork emphasises the ethical aspects of the work usually carried out in the context of vulnerable and marginalised communities. The recent decades have witnessed a resurgence of attention to the ethical issues (see e.g. Rice 2012). As a result, virtually all new fieldwork manuals delve extensively on the subject. Modern fieldwork practices now emphasise mutually beneficial fieldwork with communities in lieu of the 'Indiana Jones model' in which a linguist working independently extracts the language from a community and reifies it into outputs merely for the needs of outsiders.

As the basic ethical outline, I have striven to follow Dwyer's (2006) five fundamental principles in the documentation project: 'do no harm; reciprocity and equity; do some good; obtain informed consent before initiating research; archive and disseminate your data and results'. Monetary payment by non-related outsides for long-term work is accepted and expected in the Geshiza homeland. The main consultants were paid salaries, while short-time assistants, such as story-tellers, were compensated with gifts, if accepted. Compensation of paid consultants was adjusted on the basis of opportunity cost. In other words, the salaries compensated for the potential earnings forgone due to participating in the documentation project. The basic unit of accounting was set as the hour, except during the first field trip when fixed salaries were paid on the basis of days worked. Also, while I used written contracts when working *ex situ* with Stau speakers in Dharamshala where many exiled Tibetans have become familiar with Western style written agreements, all mutual agreements in the Geshiza homeland were conducted orally, the culturally preferred norm.

The immediate needs of language communities are often more practical than those of field linguists. I have returned items to the community, thus making them accessible to the speakers themselves. This includes, for instance, recordings made and photos taken during fieldwork. It is my sincere hope that this helps in stirring up more local interest – no matter at how small a scale – for language preservation and maintenance (see §2.9.4).

No children were recorded or interviewed during the project. This was due to two reasons. First, the issues of informed consent is problematic with children, posing thus challenges for ethical fieldwork. Second, as discussed in (§2.9.4), a language shift is currently taking initial steps among children of families where the older generations still speak Geshiza, leading to incomplete language acquisition. Overheard utterances addressed primarily or partially to children by adults, however, are included as source materials of this grammar.

The fieldwork project presented a novel problem undocumented in previous ethical literature on linguistic fieldwork. My increasing fluency in Geshiza made me relatively known locally, which resulted in people attempting to constantly record me speaking during everyday errands, such as shopping trips into the County Town. The resulting recordings were shared in a viral fashion in the Chinese Weixin/WeChat (微信) social media application. In addition to occasions where I noticed being recorded and gave my consent to it either directly or indirectly, I was also frequently recorded secretly, including occasions when I explicitly forbade this. I do

not mind videos of me speaking Geshiza being shared online, since they may help the locals see more value in their language used even by outsiders. Nevertheless, under certain conditions, recordings that are shared with a wide audience, both intended and unintended, present a potential risk to local people involved with a foreign national. While the problems of secretly recording one's consultants have extensively been discussed in previous fieldwork literature, the current issue with reversed roles constitutes a new, largely undocumented form of ethical issue in fieldwork due to ubiquitous modern technology.

To conclude, modern grammaticography pays increasing attention to avoiding examples endowed with unnecessary violence in grammatical descriptions (see *inter alia* Weber 2007: 213 for the recommendation). I have striven for elimination such unwarranted presence of violence, but the remaining examples nevertheless contain relatively many instances depicting physical harm and killing. Three reasons lie behind this. First, verbs of violence form a grammatical subgroup in Geshiza that needs to be discussed in this grammar. Second, violent scenes are often present in Geshiza folklore that consists a large share of the source materials of this grammar, and cannot thus be fully avoided. Finally, many verbs of high transitivity, epitomised by *v-s^{h}æ* 'to kill', express extreme acts of violence and for the lack of better identified alternatives in the source materials, need to be used in this grammar in many instances pertaining to transitivity.

1.3.4. State of research and documentation of the Horpa lects

At present, Geshiza and all other Horpa lects are under-documented with little previous work done. Due to a recent influx of fresh scholars to the field of West Gyalrongic research, the situation is nevertheless rapidly changing, with the result of an emerging overall picture concerning the nature of Horpa languages and their prominent grammatical features. Duo'erji (1997), a seminal study in Chinese by a native speaker from the Geshiza Valley constitutes the only extensive study of Eastern Geshiza. All other published Horpa research has concentrated on particular linguistic phenomena or grammatical sketching instead of comprehensive description. This grammatical description consequently builds on the pioneering work of Duo'erji (1997).

Duo'erji's previous description of Geshiza unidentified in the grammatical sketch itself is based on a slightly more western subdialect of Eastern Geshiza, spoken around Dazhai (Ge. *taʈsɛ;* Ch. 大寨) Village, the home region of the author. The grammatical sketch offers gives an accurate phonological description, introduces the identified word classes, and briefly touches on many relevant aspects of Geshiza morphosyntax, including orientation, aspect, negation, etc. The work concludes with a comparative analysis and includes a highly usable Geshiza-Chinese glossary as an appendix. Despite being a greatly valuable Horpa resource with lasting value as a description by a native speaker, among its shortcomings, the grammatical sketch uses an idiosyncratic transcription system, lacks systematicity, and often introduces unnecessary complexity in analysis, especially in the context of the verbal system.

Minor additional documentation of Geshiza can be found at *Gyalrongic Languages Database* edited by Yasuhiko Nagano and Marielle Prins. The database also includes other Horpa lects and core Gyalrong languages. Despite minor issues, such as those in transcription of the available audio and occasional errors, e.g. mismatches between the audio and the suggested translations likely resulting from miscommunication in elicitation situations, the resource is a highly usable and a valuable contribution to comparative Gyalrongic studies.

The research on the Horpa lects started in the 19th century with Hodgson (1853) at the time when the Tibetosphere by and large remained a *terra incognita* for Western researchers and the Horpa languages were still generally considered Tibetan dialects, rather than languages of an altogether different linguistic branch. Even though the value of these initial studies by Western explorer-adventurers cannot be denied and their outputs can be explored through philological methods for separating the relevant information from the irrelevant and outdated (see Chelliah and de Reuse 2011: 35), the old wordlists are at best of limited help for a modern linguist working on the languages.

Adopting Sun's (forthcoming) classification of Horpa lects, research has focused on the relatively innovative Central Horpa, especially on the Stau lect, which as a result has become the most well-known variety among researchers. For instance, Wang (1970-1971) presents a study of consonant clusters of Tibetan loanwords in Stau. Huang (1990, 1991) and Jacques et al. (2014, 2015) provide sketches of Stau phonology and morphosyntax. Sun and Tian Qianzi (2013) analyse argument indexation in the Gexi dialect of Stau. Gates (2017) discusses verbal triplication in the Mazi dialect of Stau, a typologically rare phenomenon. Vanderveen (2015) provides a description of Mazi Stau phonology. Finally, Sun et al. (2017) sheds light on contrastive phonation in the Upper the Stongdgu lect of Central Horpa.

In contrast, the conservative Northern Horpa has been subject to few studies, despite its value for historical research. Sun (2000b) addresses the issue of stem alternation in the Puxi (蒲西) lect of Northern Horpa. Also, Sun (2007a) discusses morphological causative formation in Shangzhai (上寨) Horpa. Even more, research on Eastern, Western, and North-Western Horpa remains largely embryonic, but van Way (2018) provides valuable new data concerning the phonology and phonetics of Bomei (博美) dialect of Nyagrong Minyag. In order to solidify the overall picture of Horpa, more research is urgently needed on the lesser known lects or languages that are expected to reveal important information for reconstructing the history of the language branch. Only after all main varieties of Horpa are adequately documented can Proto-Horpa be most reliably reconstructed, which will in turn provide invaluable data for historical-comparative work on the history of Proto-Trans-Himalayan.

1.3.5. Research and documentation of related languages

To complement the previous subsection, research and documentation of Khroskyabs and core Gyalrong languages are briefly discussed here. The importance of the generally conservative Gyalrongic languages in Trans-Himalayan is sometimes compared to that of Sanskrit in the

Indo-European language family (see Jacques 2017a: 588). Despite this, Gyalrongic research has been neglected the attention it deserves until recent years when more scholars have become engaged in describing and researching Gyalrongic languages. With only a little bit of exaggeration one could talk about an ongoing 'Gyalrongic boom' in Trans-Himalayan linguistics.

Previous research on core Gyalrong and Khroskyabs comes predominantly in two forms: descriptive grammars and topical papers. The research outputs have mostly appeared in English, Chinese, French, and Japanese. Our knowledge concerning the four core Gyalrong languages (Japhug, Situ, Tshobdun, Zbu) far exceeds that of Horpa. Since research on the core Gyalrong languages is more advanced, it is impractical to list all available resources in this grammar, especially concerning individual grammatical topics. Among others, representative recent Gyalrongic studies of wider scope include Jacques (2004), a description of the phonology and morphology of Japhug Gyalrong (in French), Nagano (2018), a descriptive grammar of Mola Gyalrong (in Japanese); Prins (2011; 2016), a descriptive grammar of Jiǎomùzú Gyalrong (in English), and Gong (2018), a descriptive grammar of Zbu Gyalrong (in French). Furthermore, because of recent scholarship, Khroskyabs, though understudied, is becoming better known. Lai (2017) is a comprehensive grammar of the Wobzi lect of Khroskyabs (in French).

1.4. Theoretical overview

The subsections below introduce the theoretical foundations of the project. The documentation and description of Geshiza was conducted using linguistic field methods, having Basic Linguistic Theory (BLT; §1.4.1) and language typology (§1.4.2) as its theoretical foundations. The section concludes with a discussion on the presentation of grammar (§1.4.3).

1.4.1. Basic Linguistic Theory

At the theoretical level, this grammatical description builds on BLT and linguistic typology. Occasionally claims are made about the possibility to conduct theory-neutral linguistic fieldwork, but even large quantities of fieldwork data cannot stand on their own, ultimately relying on the interpretation that is adopted. Also, even when claiming a theory-neutral position, a researcher nevertheless depends on an ontological framework for establishing categories and their relations in the language under study. In fact, Dryer (2001; 2006: 207) claims that 'there is no such thing as atheoretical description'. Against this backdrop, this research project adopts the framework of BLT (see Dixon 2010a; 2010b; 2012) as its theoretical foundation.

The term BLT originates from R.M.W. Dixon who coined the term to refer to the common shared ground that all linguists regardless of their theoretical orientation generally agree on. Cumulative in its nature, BLT aims to include 'fundamental theoretical concepts that underlie all work in language description' (Dixon 1997: 128). While the original intention was to keep BLT distinct from a clearly-defined framework, it has evolved towards one in recent years.

BLT enjoys a certain level of popularity, and many researchers working on language description have adopted BLT as the foundation of their descriptive grammars.

Haspelmath (2010) argues that every language should be described in a framework-free fashion, devoid of any biases caused by an aprioristic framework. Dryer (2001), in turn, states that theoretical assumptions underpin all description, with the result that atheoretical or theory-neutral description is impossible. As a result, even BLT is consequently a theoretical framework, although not always recognised as such by its followers. Excessive reliance on a framework may lure the fieldworker into a 'Procrustean trap'. In other words, all data is forcibly straitjacketed into the categories of a pre-existing framework, instead of changing the framework as a result of discordant data discovered:

> Frameworks set up expectations about what phenomena languages should, can, and cannot have, and once a framework has been adopted, it is hard to free oneself from the perspective and the constraints imposed by it. (Haspelmath 2010: 342)

This problem exists in all clearly defined theoretical frameworks. Overreliance on a more codified BLT is consequently also subject to the same potential risks of intellectual straight-jacketing of the data.

A description that builds on a generally known framework, such as BLT, is widely accessible for other scholars. This also contributes towards securing the future relevance of the research results. For example, grammatical descriptions conducted under the now less-widely known tagmemic framework have become virtually inaccessible without special knowledge. In contrast, most of the basic principles and assumptions of BLT will likely stand the test of time better. Even if some of the central tenets get eventually falsified, the work in which they appear will still be intelligible for scholars of future generations.

1.4.2. Language typology

Typology stands as the other primary theoretical foundation adopted for this grammar. In addressing the interplay of typology and language description, Shopen (1985; 2007) has been particularly helpful. Two caveats for unconditional application of typology, however, should be mentioned. From the synchronic viewpoint, the caveats from BLT also largely apply to reliance on typological data. For instance, a novel construction being attested in the field data absent from previous typological research does not necessarily imply fallacious interpretation of the data, since linguistic universals can never be verified. When investigating the diachronic stages of a language under examination, using typology as a controlling device runs the risk of leading into a historical reconstruction of an average type of language attested in the family, as pointed out by Dimmendaal (2011: 298). Notwithstanding, typological information with statistical nature facilitates language description, since it gives the field researcher hints as to what to expect as the language unfolds itself during the research project. Also, typological research and

language description exist in a symbiotic relationship with mutual influence where descriptive work provides data for typology that in turn offers theory and ideas for understanding the phenomena encountered in individual languages under study (see Miestamo 2018).

Finally, even though BLT and language typology are discussed here as two separate theoretical foundations, they are interconnected. On the one hand, BLT has been influenced by the considerable increase of typological knowledge with new discovered phenomena, such as split transitivity. At the same time, typological research can draw from BLT. In conclusion, when combined, these two theoretical backgrounds complement each other and form a solid foundation for a grammatical description that aims for a maximally wide audience.

1.4.3. Presentation of the grammar

As the title of the present work implies, the grammar aims to present the central aspects of Geshiza grammar in a culturally anchored fashion. While the present grammar fails short of 'completeness' included in Rice's (2007) typology of good grammars, I have striven for a comprehensive and detailed reference grammar. Aspects requiring further research, either in the author's future work or by other interested scholars, are copiously marked throughout the text. Also, I have striven to understand the 'web of relations' (term by Prins 2011; 2016 in the context of Jiǎomùzú/Kyom-kyo, a related Gyalrongic language) between the Geshiza language and its various ecological contexts, be they geographical, historical, religious, or broadly cultural. For this reason, reflecting the approach of 'rich description' adopted in this grammar, many of the examples offered are linked to *chapter 2: Ecological context of Geshiza*, which offers the reader a pathway for understanding the broader context of an utterance. While an 'average' descriptive grammar happily ignores such concerns, languages never exist in a vacuum. Moreover, as linguists, we often forget that language endangerment goes often hand in hand with endangerment of 'traditional' cultures facing challenges, be they economic, discriminatory, or environmental, around the world. It would consequently be shame if a linguist in 2200 perusing the grammar of a language by then long extinct finds all relevant information concerning evidentiality and other grammatical minutiae, yet has no idea about its speakers, contexts of use, and the world view embodied in it.

Grammatical descriptions can be divided into form and meaning-based ones (Evans and Dench 2006: 15). Like most such works, this descriptive grammar applies both approaches. Due to technical reasons, the printed edition of this grammar comprises two volumes. The first volume (up to chapter 6: *Word formation*) mainly follows a form-based approach by introducing the central morphology of Geshiza. Subsequently, in the second printed volume from chapter seven onwards, the rest of the grammar moves into a more meaning-based description that approaches grammar from a functional-typological perspective, discussing major grammaticalised functional domains in Geshiza. When relevant, typological remarks are included to shed comparative light on various phenomena. In all, the presentation adopted enhances the usability of the work for researchers from a functional-typological orientation who

possibly lack language family-specific knowledge only shared by specialists in a narrow field.

Every grammar ultimately offers access to a doculect. Originally suggested by Martin Haspelmath, the term doculect (i.e. documented lect) refers to a linguistic variety documented as in a given resource (Cysouw and Good 2013: 342). In recent years, scholars have paid more attention to the often extensive internal variation present in language. The object of this grammar, namely the Eastern Geshiza Horpa lect spoken in Balang and the surrounding villages, differs somewhat from that of Duo'erji (1997). Nevertheless, interpreted from the perspective of modern linguistics and its common terminology, most fundamental aspects in Duo'erji's sketch appear either strikingly close or even identical to that of Eastern Geshiza as described herein. The author hopes that this grammar provides a solid model that is helpful for both descriptive and documentary future work on Geshiza varieties and even other Horpa lects reasonably similar to Geshiza.

Linguistic research has in recent times become more accepting towards non-absolute and inclusive categories. It has become clear that linguistic phenomena are characterised by fuzziness in which categories with vague boundaries are built around a prototype, extending into less focal instances, and ultimately merging into each other (Frawley 1992: 30). Consequently, the present work accepts the gradient nature of linguistic phenomena that are defined around a prototype. For instance, the word class of nouns includes a subset of 'nounoids' that exhibit features of prototypical nounhood, yet they are clearly less focal instances of the fuzzy category of nouns.

The Geshiza language and other Horpa lects are represented through IPA in the present grammar. All Horpa lect words appear uniformly without capitalisation, including proper nouns. In all chapters except parts of chapter 3, *Phonology*, a phonemic transcription has been adopted. Consequently, the allophonic differences and non-phonological phonetic details are not indicated in the examples and language data unless it is deemed necessary in a given context. Chinese and Tibetan are transcribed using Pinyin and Wylie transliteration, respectively. When toponyms are mentioned in the text for the first time, they are accompanied by their Chinese equivalents in simplified characters for the benefit of the Chinese-speaking reader. Modern Standard Mandarin (普通话) is both the official language of China and Mandarin Chinese is also the de-facto inter-ethnic lingua franca of the country. Hence, the toponyms mentioned in the sketch can be most easily located through the medium of Chinese. When applicable, *Appendix III: List of toponyms and religious loci* lists the corresponding Tibetan toponyms for the interested reader.

1.5. Typological profile of Geshiza

This section provides a typological description of Geshiza. The profile is divided into phonological typology (§1.5.1); morphosyntactic typology (§1.5.2); and brief areal and genealogical remarks (§1.5.3) that contextualise the identified typological features.

1.5.1. Phonological typology

Geshiza exhibits a large consonant inventory of 37 full and two marginal consonant phonemes (see §3.1). The language distinguishes between non-aspirated and aspirated alveolar and palatal fricatives: *s, s^h; ɕ, ɕ^h* (see §3.1.3), a typologically rare phenomenon. Based on an initial survey (n_1= 451, n_2=548) Craioveanu (2013) found that aspirated fricatives appear in only 2-3% of languages that have phonological contrasts based on aspiration. In contrast to this, 59-66% of the languages in the sample were found to contain aspirated affricates.

The vowel inventory of Geshiza includes eight monophthongs and three marginal vowels (see §3.2.1), an inventory analysable with Crothers's (1978) typological model. In typological research of vowel systems of the world's languages, Crothers (1978) introduces a proportion X:Y in which X stands for the total number of vowel phonemes and Y for the total number of central vowel phonemes. Crothers finds that the most common orders in descending order are 5:0, 6:1, 3:0, 4:0, 4:1, 7:2, 7:0, 9:2, 6:0. These cases cover more than 80% of the 209 languages included in the sample. Crothers subsequently classifies other systems as marginal or 'deformations' of the other types. In the typological model, the Geshiza vowel system of full vowels can be classified by the proportion 8:1, indicating one central vowel out of the total number vowels in the system. In Crothers's sample, four languages (two of which with a high degree of certainty) were found to exhibit the 8:1 pattern, constituting approximately two percent of the total sample. In the light of central vowel ratio typology, Geshiza can be thus characterised as a rare language type.

Geshiza syllable structure is represented in the form (C)(C)(C)V(V)(C), of which only V is compulsory (see §.3.3.1). While consonants form two and three-member clusters syllable-initially (see §3.3.3), Geshiza only allows vowels and the phonemes /*n, ŋ, l, r* / in the coda position (see §3.3.4, §3.3.5). Tone plays no distinctive function in Geshiza (see §1.5.3 for an explanation).

1.5.2. Morphosyntactic typology

Alignment

Geshiza shows characteristics of ergative (A ≠ S = O) and hierarchical alignment (see §7.2).[20] In its locus type, also known as head/dependent marking (Nichols and Bickel 2013), the language predominantly exhibits dependent marking (1.2, following page), differentiating it from core Gyalrong languages featuring a tendency for head-marking (1.3, following page; Sun 2014a: 631). Dependent marking in Geshiza is generally more innovative in diachronic terms. Head-marking in Geshiza is predominantly visible at the clause level due to argument indexation of the verbal system (see §4.3.3, §4.3.4) that only indexes the two arguments of S/A

[20] As Bickel and Nichols (2009: 321) remark, even though assigning whole-language alignment types is useful for many research questions, such pigeonholing masks diverging patterns, some of which are salient. Offering a fuller picture, chapter 7 discusses frequent patterns of argument expression in Geshiza.

and P, one at a given time. Double marking of either S/A or P consequently surfaces when in addition to a predicate verb with head-marking, case-marked core arguments are also present (1.4, 1.5).

(1.2) dependent-marking in Geshiza:
kəta=je *dzi*
dog=GEN food
dog food

(1.3) head-marking in Japhug (core Gyalrong):
a-mu
1SG.POSS-mother
my mother (Jacques forthcoming: §2.1. Personal Pronouns)

(1.4) double marking of A: dependent-marking in arguments, head-marking at clause level:

ŋæ=ɲu *vo* *gæ-tan-s^{h}i.*
1=PL.ERG alcohol IPFV-drink.PST.1PL-IFR
We were drinking alcohol. (RN: dream)

(1.5) double marking of P: dependent-marking in arguments, head-marking at clause level:

ɲu *æŋ=ke* *smoŋ=za.*
2SG.ERG 1SG=DAT like.1=Q
Do you like me? (MEE)

Traditional morphological typology

From the viewpoint of traditional morphological typology, Geshiza is predominantly an agglutinating language. In Comrie's (1989) framework of synthesis and fusion, an elaboration on Sapir's (1921) and Greenberg's (1954) pioneering work on the subject, Geshiza has an intermediate index of synthesis and a low-intermediate index of fusion. In other words, polymorphemic word forms are common in the language, especially the complex verbs: *gæ-mɛ-vjoŋ* (IPFV-ASP.NEG-hungry.1) 'I am not hungry'. Also, as in the part *vjoŋ* < *vjə* + *ŋ* (hungry +first person indexation suffix) of the previous example, fusion that creates non-segmentable forms operates with the addition of argument indexation morphemes to the verbs. Also, the ergative and genitive case clitics occasionally fuse into the nominal they attach to, creating a fusional form with no analytic divisibility: *rdʑælpə=je* (king=GEN) > *rdʑælpi* 'of the king, of the chieftain'. The general tendency in Geshiza nevertheless stands towards agglutination, each meaning encoded by its own morpheme.

Strategies of coding of grammatical categories

Geshiza nominal inflection operates at the phrase level, encoding the categories of number (see §5.2); case (see §5.3); topic (see §13.3), and focus (see §13.4). Prominent inflectional categories of Geshiza verbs comprise person-number (see §4.3.3); direct-inverse 'direction' (see §4.3.3.2); spatial orientation (see §8.2); aspect (see §8.3); tense (see §8.4); reality status and mood (see §8.5); evidentiality and engagement (see chapter 9); and polarity with a wide range of negative prefixes (see chapter 11). The grammatical categories are expressed through prefixation (1.6), suffixation (1.7), stem modification (1.8), reduplication (1.9), and suppletion (1.10) while suprasegmental modification and infixation are absent in Geshiza:

(1.6) Prefixation:

ŋgoŋ	***dæ**-ŋgoŋ*
eat.1PL	**PFV**-eat.1PL
We eat.	We ate.

(1.7) Suffixation:

sme	*sme* **=*ɲə***
woman	woman=**PL**
woman	women

(1.8) Stem modification:

tʰu	*dæ-**tu***
drink.NPST.1SG	PFV-**drink.PST.1SG**
I drink.	I drank.

(1.9) Reduplication:

rgoŋ	***rgə**~rgoŋ*
sleep.1	**RED**~sleep.1
I/we sleep.	We sleep.

(1.10) Suppletion:

ɕoŋ	*rə-**van***
go.NPST.1	DIR-**go.SUPPL.1**
I/we go. (no orientation)	I/we go (upward orientation).

Word order typology

Focusing on word order typology, Geshiza belongs to the most frequent group of AOV, SV languages. In this respect, the language retains the original word order of its Proto-Trans-Himalayan parent. The AOV order is often seen to correlate with suffixing morphology. For

instance, Lehmann (1978: 212) formulates a typological correlation in which VSO (VAO) correlate with affixes preceding the central verb and SOV (APV) languages correlate with affixes following the central verb. As shown below, however, Geshiza diverges from the typological tendency.

The core Gyalrong languages are known for extraordinarily heavy reliance on prefixation, a typologically rare feature in its extreme forms. In a typological study comparing the use of prefixes and suffixes in inflectional morphology, Dryer (2013d) demonstrates that only approximately six percent of 969 languages surveyed exhibit predominant preference for suffixing. Besides Gyalrongic languages, only Yeniseian and Athabaskan language families behave similarly among the languages of the world (Jacques 2017a: 587).

The complex verb morphology of Geshiza is has almost equal shares of prefixation and suffixation. 25 identified inflectional and derivational prefixes can be compared with 26 inflectional and derivational suffixes. Narrowing the focus to inflectional morphology, 17 inflectional prefixes contrasting with 11 inflectional suffixes give the ratio of 61% for prefixation preference. Consequently, while still using prefixal morphology in a noticeable manner, Geshiza deviates from the heavy prefixation of core the Gyalrongic languages, especially in nominalisation (see §6.2.3.1).

A part of the tendency for prefixation preference can be explained diachronically, such as the use of orientational prefixes (see §8.2) in Geshiza. Orientational prefixes originate from independent adverbs and nouns, and when grammaticalised into orientation prefixes in AOV languages, they simply continue their original position (Mithun 2003). Geshiza clearly exhibits this pattern. To illustrate, it diachronically possible that the orientation adverb *rə-ro* 'upwards-direction' has grammaticalised into an orientational prefix *rə* 'upwards': *rə-ɕə* 'to go up' (see §8.2.1).

Head directionality

In phrase-level syntax, Geshiza exhibits a mixture of head-final and head-initial patterns. In head-final constructions, patients precede their verbs (1.11), modifying demonstrative precedes the nominal head (1.12), possessors precede their possessed nouns (1.13), and the language has postpositions (1.14). In head-initial constructions, modifying demonstrative follows its head noun (1.15), as do modifying adjectives (1.16).Classifiers accompanied by numerals equally follow their head nouns (1.17). Relative clauses formed by nominalised verbs either precede (1.18) or follow their head nouns (1.19), but the phrase is in both cases enclosed between an initial demonstrative and a final topicaliser enclitic.

(1.11) P + V:

ŋa	*ɲi*	*s^{h}æn = bɔ.*
1SG	2SG	kill.NPST.2=MOD

I will kill you! (OU)

(1.12) DEM + N:

e *vdzi*
DEM person
this person

(1.13) GEN + N:

ɲi *ʑ̩mo*
2SG.GEN mouth
your mouth

(1.14) N + POST:

læsær *ŋui*
New.Year before
before the New Year

(1.15) N + DEM:

rdʑæ *tʰu*
Chinese DEM.ERG
that Chinese (did something)

(1.16) N +ADJ:

dəra *gæ-tɕʰæ*
pipe ADJZ-big
a big pipe (for smoking)

(1.17) N + NUM + CLF:

bərzi *æ-qʰa*
knife one-CLF.stick
a knife

(1.18) DEM + REL + N:

e *dæ-ʑe-sʰi* *vdzi=tʰə*
DEM PFV-come.3-NMLZ:S man=TOP
that man who came

(1.19) DEM + N + REL:

e *vdzi* *dæ-ʑe-sʰi=tʰə*
DEM man PFV-come.3-NMLZ:S=TOP
that man who came

Absent grammatical categories

The following typologically prominent grammatical categories are absent from Geshiza. If the direct-inverse system (see §4.3.3.3.2, §7.2.4) is defined as distinct from voice, the language lacks voice as a grammatical category. While Geshiza has no passive, passives are attested in other Gyalrongic languages, for instance Wobzi Khroskyabs (see Lai 2017). Macro-nominals (see §4.1) have no declension (see §4.5 for pro-forms where the fusional forms with core case enclitics have become superficially close to declination). The macro-nominals do not distinguish gender, nor has the language noun classes.

1.5.3. Areal and genealogical remarks

In recent years, the focus in linguistic typology has to an increasing degree shifted into an areal viewpoint that pays more attention to areal and genealogical factors for explaining typological distributions. Bickel (2007: 239) summarises the key questions for this new trend as 'what's where why?' This approach appears as particularly appropriate for understanding Geshiza typological peculiarities that must be understood in their areal and genealogical contexts.

Unlike the Amdo Sprachbund where Turkic, Mongolic, Sinitic, and Tibetic languages are spoken (see Janhunen 2012: 72), all languages in the environment surrounding the Geshiza homeland belong to the Trans-Himalayan language family. This complicates distinguishing areal and genealogical features in the attested languages. To illustrate, consensus is lacking whether orientation prefixes (see §8.2) in the languages of the postulated Qiangic branch (see §1.2.2) of Trans-Himalayan are a genealogical feature inherited from a common ancestor language or later innovations spread intra-linguistically due to their usefulness in a mountainous terrain characterised by rivers valleys surrounded by habitation (see Shirai 2018 for a brief geolinguistic survey of orientational prefixes in the postulated Qiangic languages). In any case, this form of grammaticalised topography-based spatial deixis is relatively rare typologically and qualifies for an areal feature. Also, the inventory of multiple existential verbs (see §7.6) is an areal feature Geshiza shares with many of the surrounding languages.

With 37 fully phonemic consonants and 8 fully phonemic vowels, Geshiza fits neatly into the areal typological pattern of phonological complexity. The same goes for the large inventory of consonant clusters. As reconstructions illustrate, a great deal of this shared phonological complexity is inherited. At the same time, phonological complexity attested in languages surrounding Geshiza, such as core Gyalrong and Tibetic, is also an areal feature. Also, as discussed in §1.5.1, Geshiza distinguishes between non-aspirated and aspirated alveolar and palatal fricatives. Even though this phenomenon is statistically unusual among the world's languages, it appears in several languages of the surrounding environment of Geshiza. Since many of the languages besides Geshiza exhibiting this feature, such Zhaba, Bumi, and Burmese, are spoken in contiguous zones, aspirated fricatives in Eastern Tibetosphere are at least partially an areal feature (Jacques 2011a: 2).

The languages of the Tibetosphere are frequently characterised by the presence of tone.

Consequently, the toneless Geshiza makes an exception, but language history explains this areal typological anomaly. Tone is attested among Horpa languages, such as Northern Horpa where it functions to distinguish between the stems 1 and 2 in a subset of the verbal system (Sun forthcoming), the stems also termed non-past and past in the present work. Discussed in §4.3.5.3, Geshiza stem system includes an anomaly, namely that verbs comprising only voiced consonants have only one stem, e.g. *ŋgə* 'to eat'; *ndzo* 'to sit'. This is best explained as erosion of earlier tonal distinctions, which resulted in a merger of the stem 1 (non-past) and stem 2 (past) for verbs with only voiced consonants. Following Sun (forthcoming), it can be argued that rather than being conservative and avoiding tonogenesis in the first place, phonological tone of ancient nature in Horpa languages has disappeared from contemporary Geshiza.

Finally, together with numerous languages from the American language families, the Trans-Himalayan languages are known for the complexity of their evidential systems among the languages of the world (Aikhenvald & LaPolla 2007: 3). The Geshiza repertoire of a non-marked ego evidential and five morphologically marked epistemic categories, namely the sensory, inferential, reportative and quotative evidentials together with two paradigmatic engagement markers closely follows the stereotype of a complex epistemic grammatical systems in the language family.

CHAPTER TWO
Ecological context of Geshiza

This chapter offers an overview of the ecological context of Geshiza. It aims for a better cultural anchoring, which makes the grammatical description easier to understand against the actual contexts and conditions where the language is spoken. The overview is based on participant observation, monolingual ethnographic interviews, and fieldwork recordings, supplemented with Tibetological literature. Many original Geshiza concepts are used in the discussion accompanied by their English and occasional Tibetan translations. Brief translated excerpts of cultural comments by the Geshiza on the issues discussed in this chapter are also included. This allows the speakers themselves to give voice to their views, participating in the discussion.

The chapter starts with an introduction and definitions (§2.1). The following themes discuss physical landscape among the Geshiza, focusing on geography and climate (§2.2); issues pertaining to identity and gender, kinship, and names in the Geshiza society (§2.3); cyclic and linear events that dot the lives of the Geshiza (§2.4); local economic structure that is currently based on agriculture and migrant labour (§2.5); Geshiza material culture, such as architecture, objects, clothing, and cuisine (§2.6); and immaterial culture in the fields of religion, education, and transmission of knowledge (§2.7). Against all of the aforementioned, the focus shifts to cultural change and continuity, two coexisting yet opposite forces at play among the Geshiza (§2.8). The end of the chapter surveys the present sociolinguistic situation of Geshiza and possible future trajectories of the language (§2.9).

2.1. Introduction

As a background for the following discussion, the introduction herein defines linguistic ecology (§2.1.1), and the concept of Geshiza culture (§2.1.2).

2.1.1. Linguistic ecology

Human language lies at the nexus of larger interconnected systems concerning psychology, neurology, culture, time, space, and social relationships (Bright 2007: 12). In other words, human language always exists in larger contexts. Nevertheless, such contexts are frequently either omitted or played down in linguistic research, with the result that a typical descriptive grammar contains little material contextualising a language and its grammar. Criticising such decontextualising trend in his time in the early seventies, Einar Haugen argued for the need for a new field of linguistic research, which led to the emergence of ecolinguistics:

> Most language descriptions are prefaced by a brief and perfunctory statement concerning the number and location of its speakers and something of their history. Rarely does such a description really tell the reader what he ought to know about the social status and function of the language in question. Linguists have generally been too eager to get on with the phonology, grammar, and lexicon to pay more than superficial attention to what I would like to call the 'ecology of language'. (Haugen 1972: 325).

The metaphor of ecology had originally been introduced into linguistics by Voegelin, Voegelin, and Schutz (1967). In Haugen's (1972) widely quoted definition, language ecology studies the interaction between a language and its environment. The terms 'ecology of language', 'language ecology', and 'linguistic ecology' are now used in largely synonymous fashion, albeit with different preferences and definitions by different scholars. The relatively new field of ecolinguistics has started gaining popularity and influence. As a result, academic discourse has increasingly come to portray languages as inseparable from their biocultural environment (Mühlhäusler 2010: 432). The attempt in the present work for a contextualised treatment of the Geshiza and their language should be seen against this backdrop.

At the core of Geshiza ecology lies the location of the community at the convergence zone between the Tibetan and Chinese civilisations, a critical factor in shaping both the language and culture of the community members. Sometimes ethnic minorities in Eastern Tibetosphere are exaggeratingly discussed as a mere product of 'civilisational collision' in a place where Tibet meets Han China. Used in moderation, the framework of Sino-Tibetan convergence zone is nevertheless highly useful for contextualising the Geshiza and their language. Furthermore, as shown in this chapter, inhabiting this crucial convergence zone does not make the Geshiza mere agentless actors, but despite some undeniable challenges, also empowers them by helping then negotiate a way of life and modernity of their own.

In addition, understanding the bilingual nature of the current Geshiza ecology is essential for fully grasping the realities the language is facing. In other words, ignoring the coexisting Chinese in the ecosystem leads into an incomplete picture of Geshiza itself, since Geshiza is currently heavily influenced by Chinese. The Geshiza language itself is rapidly changing due to socioeconomic and political changes that trace back to the Geshiza homeland becoming part of the PRC in 1950s. These changes have accelerated since the Open Up the West Programme (see §2.8.2) of the State. Consequently, while this grammar comprises a description of Geshiza, interaction of the language with Chinese is also discussed in appropriate contexts.

2.1.2. Culture and the issue of 'Geshizaness'

Like the term linguistic ecology, the concept of culture in the context of Geshiza requires examination. Since Edmund Leach's seminal opus *Political Systems of Highland Burma* (1954), it has become widely known that a strict triangular relationship of one ethnicity, one place, one culture, rarely appears in the real world. Further elaborating on the issue, in *Ethnic Groups and*

Boundaries (1969), Fredrik Barth refutes the notion of territorially defined and bound ethnicities characterised by the absence of mobility, contact, and information, instead showing the interconnections of ethnic identities across porous frontiers, the interaction leading to the creation of ethnic consciousness. As Barth shows, a model in which ethnic units as islands to themselves correspond to distinct cultures in a simplistic one-to-one mapping is far from reality.

In western Sichuan, ethnic groups defy a neat one-to-one mapping in which each ethnic group possesses a clear-cut distinct form separate from all other locations. Instead, many cultural features permeate through various ethnic groups over space. As a result, numerous features ascribed here to the Geshiza equally apply to many of the surrounding ethnicities inhabiting the Eastern Tibetosphere. Consequently, justification is needed for the preference of the term 'Geshiza culture' vis-à-vis the more general 'Tibetan culture', for instance.

Before the current Sinicisation, Tibetan influence had been especially strong among the Geshiza, and their culture is arguably a local manifestation of many of the defining characteristics typically attributed to Tibetan culture as a macro level concept. For this reason, similar to the Geshiza, many minorities of the Tibetosphere are often characterised as 'ethnic Tibetans' in the literature. Yet, as argued by Shneiderman (2016), the actual significance of this frequently used term and its variants is rarely discussed, and the term merely reifies its classificatory use by the Chinese State or the Central Tibetan Administration in Dharamshala. The present work does not attempt to tackle this terminological and conceptual conundrum, but its existence must nevertheless be noted. Consequently, describing Geshiza culture without excessive reliance of presuppositions connected with Tibetanness contributes to our understanding of not only what unifies the peoples under the overarching category of 'Tibetan', but equally importantly, also to seeing what divides them (see Shneiderman 2016: 3).

The Tibetosphere currently faces a movement emphasising pan-Tibetanness that underlines the monolithic nature of the Tibetan nation, an imagined community in Anderson's (1983) terms. As argued by Roche (2016: 139-140), the imagining of pan-Tibetan nationhood is fed by the concept of Tibetanisation of ethnicities in the realm of the Tibetosphere, since the concept leads to the maximisation of space conceptualised as Tibetan and consequently hides the underlying diversity. Against this backdrop, defining the Geshiza solely in terms of Tibetanness thus deprives them of their unique characteristics, hides unique local distinctions such as the Geshiza language, and underestimates the important role that Chinese culture and other sources have played in the community. In fact, the umbrella of Tibetan culture shelters under it many micro-cultures that encompass myriads of diverging ways of being Tibetan. Consequently, the term Geshiza culture is justified and used here. In the present work, the term refers to all cultural habits important and meaningful for the Geshiza, regardless of their historical source and overlap with other regional ethnicities. In other words, Geshiza culture constitutes a shorthand for describing the unique Geshiza way of being Tibetan.

2.2. Landscapes

Starting from a concrete aspect of the Geshiza environment, this section discusses visible features of the Geshiza homeland. A geographical sketch (§2.2.1) is followed by that of climate in (§2.2.2). Extending the meaning of landscapes from predominantly natural features to the human domain, the section concludes with an outline of the Geshiza linguistic landscape (§2.2.3).

2.2.1. Geography

Geshiza Valley, the homeland of the Geshiza surrounded by mountains and traversed by the Geshiza River, is located in Danba County, a subdivision of Garzê Tibetan Autonomous Prefecture (甘孜藏族自治州) belonging to the Sichuan Province in South-Western China. Together with the adjacent Yunnan Province, the area is a hotspot of geographic, biological, historical, cultural, ethnic, and linguistic diversity (Chirkova 2015). Recent scholarship has demonstrated a link existing between environmental factors and linguistic diversity. Axelsen and Manrubia (2014) quantitatively demonstrate that dense river systems and the roughness of terrain correlate with linguistic diversity. Also, as summarised in Maffi (2005), biocultural and linguistic diversity correlate, the global distribution of languages and biodiversity largely overlapping. Against this backdrop, the larger geographical context of the Geshiza constitutes a heterogenous area of interwoven diversities.

Figure 2.1 on the following page shows the geographic features of the Geshiza Valley and its immediate environment. Danba County Town (Ge. *braŋgu;* Ch. 章谷镇; see Figure 2.4 at the end of the chapter) forms the geographical centre of the region, lying at the confluence area of all major regional rivers. The direction of water flow is indicated with arrow symbols in Figure 2.1. The rivers Geshiza, (革什扎河), Dajin (大金川), Xiaojin (小金川), and Donggu (东谷河), also known as Maoniu River (牦牛河) converge into Dadu River (大渡河) at Danba County Town from where the accumulated water masses subsequently flow down into the Sichuan Basin. Due to its strategic location, the confluence area has since ancient times been a place of interethnic interaction and a passageway for migratory populations.

The core area of Geshiza Valley is marked with dotted line in Figure 2.1. It should be noted that as a political term, Geshiza only refers to the eastern end of the Valley. At its eastern end, the Valley lies almost along the east-west axis, but curves northward so that in Dandong, it runs along the north-south axis. Geshiza River flowing towards Danba County Town traverses the Valley surrounded by mountains on both sides (see Figure 2.5 at the end of the chapter). The northern mountains of Eastern Geshiza that rise steeply mostly lack any vegetation on their slopes while coniferous trees partially cover the less steep southern mountains. The inhabited area of the relatively narrow Valley lies between the approximate altitudes of two and four kilometres above sea level, gradually rising as one moves further away from the County Town.

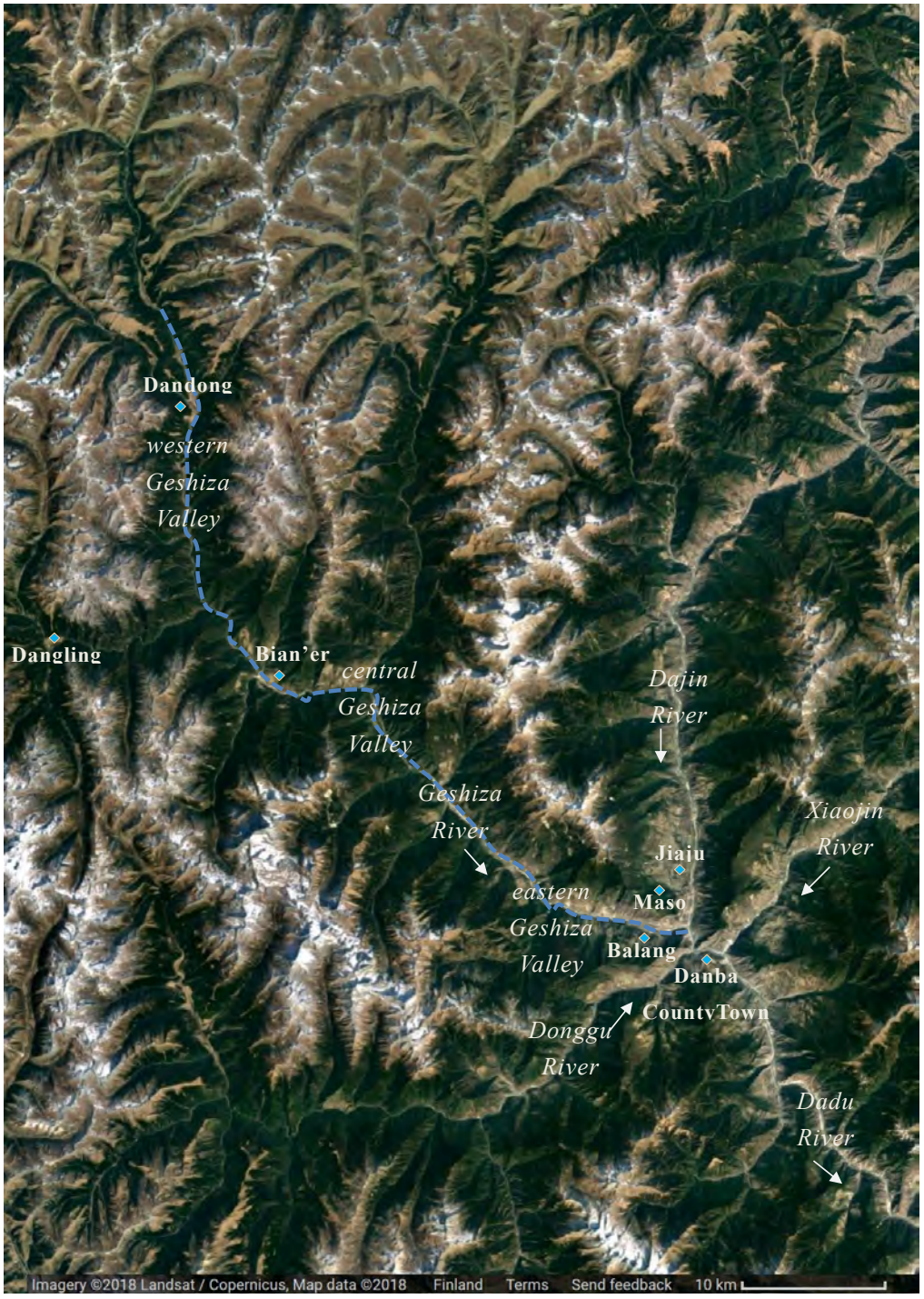


Figure 2.1. Geshiza Valley[21]

[21] Map data: © Google and CNES/Airbus (https://maps.google.com/). The toponym labels, the flag and arrow signs, and the dotted line illustrating Geshiza Valley along Geshiza River are added by the author.

Most habitation in Geshiza Valley is centred on both banks of Geshiza River. Geshiza also used to live high up on the mountain slopes, but in recent times, many mountain dwellers have abandoned their homes in favour of migrating into the more densely populated lower slopes of the Valley, which has caused certain communities, such as †Masuo (Ge. *mæso;* Ch. 麻索寨), to become deserted. Such resettlement is common in contemporary China as a result of State policy initiatives, including centralised schooling and housing subsidies. Recent resettlement in Geshiza Valley thus reflects this ongoing trend in China.

Geshiza Valley is inhabited discontinuously with villages scattered along the Valley as the basic units of settlement. The villages are connected to each other and to the regional centre of Danba County Town by a paved road in generally good condition, running along the Geshiza River. Balang Village (decimal degree coordinates 30.891; 101.845, see Figures 2.5, 2.6, and 2.7 at the end of the chapter), the main fieldwork location, is located at the eastern end of the Geshiza Valley at an altitude of approximately 2050 meters above sea level. Of all Geshiza villages, it lies closest to the County Town, which gives the village an advantageous position in the new Chinese economic order. The location of Balang on a small hill, however, is disadvantageous from the viewpoint of water supply.

Even before modern roads built by the State, movement along Geshiza Valley has been relatively easy. In contrast, the mountains function as barriers hindering communication with communities on the other sides in different valley systems. Resulting from the rugged geography, other communities, such as Jiaju (Ge. *dʑadʑə;* Ch. 甲居乡), that on the map appear merely on the other side of the mountains are in practice accessed via a circuitous route through the County Town, following the river valleys, since the ancient mountain paths crossing over the peaks require a full day's journey of hard and dangerous climbing. As a result, the Geshiza interact considerably more with each other than with the surrounding communities in different valleys, the access into which requires more effort. Other groups behave similarly in turn.

The geographic features imposed economic self-sufficiency as a survival condition for the Geshiza in the past. As in other areas of the world, such as the Himalayas, impassable mountainous terrain provides a fertile ground for cultural and linguistic diversity to develop (see Hammarström 2016: 21; Owen-Smith and Hill 2014: 1). The Geshiza homeland thus qualifies for what Nichols (1992: 21) has termed a 'residual zone': a region characterised by structural and genealogical linguistic diversity, great antiquity of the present languages, and long-term increase in diversity, contrasting with a 'spread zone' exhibiting the opposite attributes. Consequently, even though the Geshiza have never been completely isolated, their relative isolation has clearly fostered linguistic conservatism and complexity. At least a part of the conservatism and complexity present in Geshiza and the linguistic diversity characterising the immediate environment of the language's speakers arises from geographic factors.

The Geshiza language has adapted to the geographical location of its speakers. Some physical features have become encoded into the grammatical core of the language. As mentioned in §1.5.3, orientational prefixes (see §8.2) that indicate the direction of movement

or action use the Geshiza River as the reference point. In an environment dominated by massive mountains traversed by a river, expressing topography-based spatial deixis in terms of the dominating geographical features is thus a natural result of environmental influence on the grammatical system.

2.2.2. Climate

From a Western perspective, four distinct seasons exist in the homeland of the Geshiza: winter, spring, summer, and autumn. The Geshiza themselves divide this annual cycle into two parts: *vʑar* 'warm season' and *rtso* 'cold season'. In Geshiza Valley, precipitation mostly occurs during the warm summer, in contrast to cold and dry winters. In comparison to many of the surrounding locations, such as Daofu County, winters in the Valley are less cold with only limited annual snowfall in the eastern part, but recurrent strong wind. Wintertime temperature varies considerably between the relatively warm sunlight hours and cold nights.

When moving west along Geshiza Valley, the average temperature decreases in tandem with altitudinal increase, especially during winter. The steep mountains surrounding the Valley control sunlight exposure, which makes climatic conditions even in neighbouring villages noticeably different. For instance, Balang Village receives noticeably more sunlight due to its position on a hill in comparison to Buke Village at the bottom of the Valley a short walk away. In sum, due to geographical factors, every Geshiza village has its climatic micro-conditions.

2.2.3. Linguistic landscapes

This subsection offers a visual survey of linguistic landscapes in Geshiza Valley. For the sake of brevity, the situation in Danba County Town, the regional centre that is becoming part of the Geshiza sphere due to rural exodus, is only briefly discussed in this overview. In the commonly used definition of Landry and Bourhis (1997: 23), the term 'linguistic landscapes' refers to the visibility and salience of languages on public and commercial signs in a given territory or region. Be they road signs or billboards, signs mark public space and hence indirectly express power relations in the society by including certain groups and excluding others.

The unwritten Geshiza language is invisible in the linguistic landscape of Geshiza Valley that has become dominated by Chinese signage in recent decades. Prior to this, most written signs in the Geshiza homeland were religious in nature, engraved or painted in Written Tibetan. Many of these still exist, especially the omnipresent Tibetan Buddhist and Bön mantras *oM ma Ni pad+me hU~M':* and *oM ma tri mu ye sa le 'du*, respectively (see Figure 2.9 of a 'mantra stone' at the end of the chapter). Most Geshiza, however, lack knowledge of the Tibetan writing. Consequently, the main function of the mantras centres on their symbolic religious value, rather than actually conveying a written message to an audience.

After the incorporation of Geshiza Valley into the PRC, the sacred signs now coexist with government-issued signage advocating political issues, such as forest preservation and caring about the environment. Although monolingual Chinese signage is relatively wide-spread,

village-name signs occasionally exist in trilingual forms: Written Chinese, Tibetan, and English. For instance, the name of Balang (Ge. *bəra*) Village manifests itself in trilingual form: པ་རའི་ཞོང་ཚྭ; 巴郎村; Balang Village (see Figure 2.10 at the end of the chapter). The English text in non-tonal pinyin derives from the Chinese part with the addition of the word 'Village'. In contrast, the Tibetan *pa ra* seems independent from the Chinese and rather attempts to render the Geshiza pronunciation of the toponym.

All three languages in signage serve different functions. The Geshiza, local Chinese, and domestic visitors are the audience for the Chinese script, yet the Geshiza hardly need signage to navigate their homeland. Inclusion of English likely results from the intention to attract more foreign tourists. Several neighbouring townships, such as Badi, Zhonglu/Dongnügu, Jiaju, and Suopo have already become focal spots of tourism (see Jinba 2014). This is reflected in their signage. For instance, in touristy Jiaju, multilingual signs have been put up, including cultural information boards containing Chinese, Tibetan, English, Japanese, and Korean. Such signboards describing local culture, important places, and history do not exist in Geshiza Valley, which highlights a clear gap between the places from the viewpoint of tourism industry.

In Geshiza, Tibetan spelling in signage exhibits minor inconsistency. For instance, in addition to previously to *pa ra*, Balang is also spelled as *bod ra* in the signage. It is worth noticing that while an etymological connection is lacking (see §2.3.4 for etymology of toponyms), the pronunciation of the Tibetan word *bod* 'Tibet' approximates the first syllable in the indigenous Geshiza toponym *bəra*. As discussed above, Tibetan largely plays a symbolic role in signage due to limited understanding of the language in Geshiza Valley. The Geshiza are officially classified as Tibetans and self-identify with the term (see §2.3.1). In sum, rather than having a practical function, the use of Written Tibetan thus underlines the ethnic classification of the Geshiza.

The multi-lingual space of Danba County Town is clearly dominated by Chinese signage. Nevertheless, many shop and restaurant signs exhibit a bilingual format: large Chinese script with small Tibetan script written above. Unlike in Geshiza Valley, speakers of the Twenty-four villages' patois, a Tibetic language, also have a sizeable presence in the Town, so the Tibetan script is not merely tokenistic, even though it is unquestionably also used as a marketing strategy to appeal especially to Han Chinese tourists who are attracted to exoticised Tibetan culture. Since the County Town has become a hub also for the visiting foreign tourists, a part of the signage includes English as well, even though this remains less widely-spread.

Linguistic landscapes usually refer to public space. 'Private linguistic landscapes' are less permanent and subject to frequent redecoration. As a general trend, however, Chinese has become strongly visible in private space as well. Many picture posters hung on the walls for decorative purposes include Chinese writing and even new mass-produced decorative pictures with Tibetan motives either include Chinese or lack any accompanying text altogether. Tibetan is nevertheless also visible, mainly in terms of religious objects, such as prayer flags. The tokenistic value of Tibetan writing in the household thus remains very important to this day.

2.3. Identity, gender, kinship, and names

This section introduces four important domains for understanding interpersonal relationships among the Geshiza: the complex Geshiza identity structure (§2.3.1); gender roles present in the society (§2.3.2); Geshiza kinship system (§2.3.3); and names (§2.3.4).

2.3.1. Identity structure

Issues of identity are complicated in the Ethnic Corridor of China with high linguistic and ethnic diversity. Consequently, it is useful to approach the question of Geshiza identity with a multi-layered model. Construction of a collective identity is based on the exclusion of others by creating contrasting categories of 'us' and 'them'. In other words, construction and maintenance of identity creates borders in the minds of people, often based on perceived ethnic differences. As shown in the typology of Wimmer (2008), such ethnic boundaries are subject to modification that *inter alia* redraws them or reshapes them. Approaching the dichotomy of 'us' and 'them' from another perspective with the terminology of Barth (1969), at the core of ethnic identity formation lies self-ascription, namely what the members assert themselves, and ascription, namely an identity assigned by the others. In sum, identity emerges as a negotiated process between internal and external factors.

Instead of one all-encompassing identity, people generally have several overlapping identities in different domains: e.g. nation, home village, and religion. The relevant identity frame thus depends on the active domain and to which reference group the in-group identity is contrasted (see §1.13). For this reason, reducing the structure of Geshiza identity to one label gives inadequate results. The question of identity is consequently approached here from different domains at macro, meso, and micro levels here (see also §2.7.1 for religious identification).

Complexity of the Geshiza identity

Dwelling at the crossroads of great empires or civilisations often contributes to an intricate identity structure. The Geshiza live at the multiethnic and multilingual borderlands of Han China and Tibet, which gives rise to their complex identity. At the macro level, affiliation with the Han Chinese and Tibetan ethnicities forms the two poles of the Geshiza identity. As in the case of nearby Sogpo Tibetans (Jinba 2014), this also results in 'double marginalisation'. The Geshiza are neither prototypical Chinese nor Tibetan, since they are 'too Chinese' to be Tibetan and conversely, 'too Tibetan' to be Chinese. Both in a concrete and an abstract sense, the Geshiza inhabit a convergence zone of both major cultures. Despite the resulting marginalisation vis-à-vis both major cultural zones, at the same time, living at a dynamic cultural convergence zone also empowers the Geshiza to negotiate their identity and to adopt suitable labels based on the context of interaction.

Geshiza as Tibetans

The Geshiza see themselves as Tibetans and refer to themselves as such in both Geshiza and Chinese (Ge. *bæ;* Ch. 藏族 'Tibetan'). The official classification conforms with the sense of identity felt by the Geshiza. In addition to the Han majority, Tibetan is one of the official labels in the classificatory scheme that divides the population of China into 55 ethnic minority groups (少数民族). In 1950, the newly independent China classified the Gyalrongwa, namely the Gyalrong people with whom the Geshiza also self-identify, as a separate ethnicity (Jinba 2014: 21). The PRC administration mainly relied on linguistic arguments in establishing the Gyalrong minority nationality, but Tibetan scholars protested this, since they saw it as an attempt to break up the Tibetan cultural entity (Prins 2006: 183). The identification label was thus officially changed into the current Tibetan one in 1954. It is likely that the integration of Gyalrongwa into the official minority group of Tibetans by the State has strengthened the self-identification of Geshiza as Tibetans. Notwithstanding, there is no evidence for a claim that the Tibetan identity label is a later construct that emerged after the Geshiza territory became a part of the PRC. The Geshiza, like the other Gyalrongwa, originate as an ethnic group separate from Tibetans (see §1.2.1), yet they have been under Tibetan cultural influence for a long time.

Mainly linguistic differences with Tibetans who speak Tibetic languages has caused a paradox. The Geshiza are officially Tibetan in the classification of the State and self-identify with the label, yet their Tibetanness can be denied because of linguistic differences. As Roche (2017) describes, even though language in the past was primarily a marker of local, and not ethnic identity in the Tibetosphere, an ethnic awakening among the Tibetans promoting a homogenous and unitary view of the Tibetan people. This has paved the way for an ideological environment in which speakers of non-Tibetic minority languages can even be portrayed as ethnic traitors. As a result, self-ascription and outside ascription of who the Geshiza are may occasionally diverge.

Geshiza as Chinese

Many Geshiza identify themselves with the Chinese state and are genuinely proud of the life-changing development that has improved the standard of living in Danba County and other regions inhabited by China's ethnic minorities. In this, they differ from some other minorities of Western Sichuan more critical towards the current regime, such as the Stau whose interaction with the State has been more problematic at times. Many Geshiza, especially the young, have greater command of Sichuanese Mandarin and increasingly also of Standard Mandarin. Both admiration of progress and development associated with the Han Chinese and high competence in Chinese connect the Geshiza deeply into the realm of the State. As everywhere else, different individuals and communities hold on occasion strikingly different views concerning the ruling powers. Nevertheless, the overall impression among the Geshiza sees the current regime in a positive light. In sum, while devoid of Han Chinese identity, many Geshiza feel close to the Chinese State, showing a way of being ethnic Tibetan that is not always antagonistic to the

Chinese State, a common oversimplified representation of the Sino-Tibetan relationship.

The identity structure sketched above that includes both identification with the PRC state and strong ethnic consciousness of being Tibetan may sound counterintuitive against previous discourse about the Tibetans in the literature. To unravel the issue, further inspection of the term 'Tibetan' is necessary. Shneiderman (2016) argues that 'Tibetan' is a complex term for both national and ethnic identity, the two of which must be analytically separated. Seen against this insightful proposal, the Geshiza thus conceptualise themselves as Tibetan in the ethnic, but not in the political sense. In other words, unlike some of their neighbouring ethnicities, the Geshiza do not participate in the ongoing imagining of a Tibetan nation, instead pledging their political allegiance to the PRC. This, however, does not negate their strong ethnic identity as Tibetans, which links them more tightly to other Tibetan ethnicities than to the ethnically clearly distinct Han Chinese, the dominant actors of the Chinese State.

Geshiza as Gyalrong

In their meso-level identity structure, the Geshiza emphasise their Gyalrongness, which sometimes has physical manifestations. For instance, a museum and centre of Gyalrong culture is being planned in Balang Village, yet at the time of writing, the centre is not yet operational. At the same time, despite linguistic affinities, the Geshiza feel distinct from the other surrounding Horpa lect speaking groups, such as the Stau and Bawang. The cultural differences between the Geshiza and the neighbouring Stau, are noticeable. The Stau who inhabit the lands west of the Geshiza homeland are under strong Tibetan influence whereas the Geshiza are increasingly being influenced by the Han Chinese. In sum, linguistic relationships seem to bear little or no meaning in forming meso-level identity structures among the Geshiza.

Local identities

At the micro level, the Geshiza strongly identify with their local communities in Geshiza Valley. In the case of Balang Village, for instance, the village as a whole constitutes a distinct identity unit to which its members feel a strong sense of belonging. Balang villagers pride themselves on their village and occasionally make jocular comments about the surrounding villages that are responded to in kind in a good-natured manner.

Question of language in identity forming

While language cannot be neglected as a factor in identity forming, especially at the micro level, it plays no dominating role in creating many of the macro level identities of the Geshiza. For instance, lacking knowledge of Tibetan does not impede the Geshiza identifying themselves as ethnically Tibetan. Similarly, neither does the linguistic diversity among the Gyalrong people hinder the Geshiza identifying themselves with the label. The Geshiza thus substantiate Chirkova's (2007) case study findings that language does not function as the main constructive element of ethnic boundaries or as an exclusive marker of identity (see also Haarmann 1986).

On the contrary, sharing religion and *ŋʤʐolu* 'way of life' appear as more important factors in identity. During the fieldwork, different surrounding ethnic groups were commonly described as *ŋʤʐolu mi-ŋʤʐa-ræ* (custom NEG-be.same-SENS), having a different way of life.

2.3.2. Gender roles

In the Geshiza agricultural society where the contribution of both sexes is necessary for the well-being of family units, many societal roles and tasks are not gendered. For instance, both men and women participate in child rearing, sharing the responsibilities. Men can also be seen cooking on occasion, especially when no women of a household are present. Notwithstanding, village life includes many domains where men and women have distinct gender roles, such as agricultural work. To illustrate, the Geshiza sneer at the thought of a man milking a cow, which is strongly seen as a traditional female task. Also, hoeing the field belongs to the domain of women's work, but men are expected to help in carrying the harvested grain home from the fields. During a village event, such as a wedding, men and women sit separately and socialise primarily with their own sex.

2.3.3. Kinship

This section sketches the core Geshiza kinship system. For the sake of simplicity, the kinship term framework is offered separately for male (Figure 2.2a) and female (Figure 2.2b) egos, since sibling terminology in Geshiza differs considerably depending on the speaker's sex. Other generations, however, use the same kinship terms regardless of the speaker's sex.

Kinship with its network of interpersonal relationship is immensely important for understanding the structure of a society and interaction among its members. A limited number of studies concerning Tibetan kinship terminology exist (see e.g. Benedict 1942 on Tibetans in general and Wuqi Chenaktsang 2013 on Amdo Tibetans). Also, most research with affinity to kinship has focused on polyandry practiced by some Tibetan groups, since the practice has been of particular interest to many outsider scholars drawn to exoticism. As a result, locally anchored detailed information about the kinship systems of many ethnic groups inhabiting the Eastern Tibetosphere is still lacking. Kinship terminology is interesting also from a linguistic viewpoint, since it frequently includes stable and old words resisting replacement.

Adopting the typological framework of Kroeber (1909, cited in Greenberg 1966: 86-87), the Geshiza core kinship system applies the parameters of sex of the relative (*æ-pa* 'father', *æ-mæ* 'mother'); sex of the connective relative (*æ-ʑo* 'maternal uncle', *æ-kə* 'paternal uncle'); sex of the speaker (*ri* 'younger brother' used only by males), generation (*æ-pa* 'father', *æ-mɲi* 'grandfather'); relative age within generation (*ri* 'younger brother', *koko* 'older brother'); lineality versus collaterality (*æ-pa* 'father', *æ-kə* 'paternal uncle'); and consanguineality versus affinality (*smæ-ŋa* 'daughter', *rjəu-lŋa* 'daughter-in-law'). Like in all kinship systems, none of the enumerated parameters pervades the whole system.

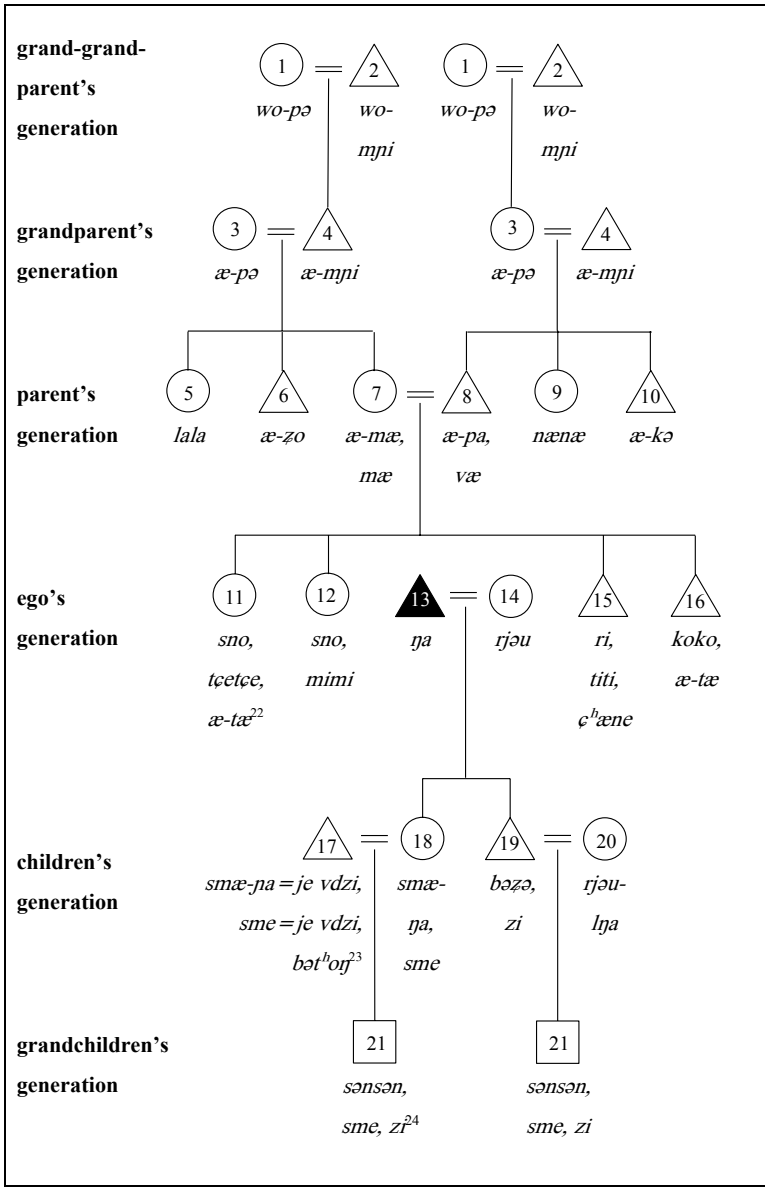


Figure 2.2a. Core blood relative terms among the Geshiza, male ego

[22] The kinship term *æ-tæ* 'older sibling' is not frequently used in Balang, but appears in more western dialects of Eastern Geshiza.

[23] The terms differ as follows: While *smæ-ɲa=je vdzi* and *sme=je vdzi* are synonyms, *bətʰoŋ* differs from the two. If the ego's daughter leaves her native household upon marriage, the term *smæ-ɲa=je vdzi* or *sme=je vdzi* lit. 'daughter's husband' is used. If she stays and the husband moves into ego's household, *bətʰoŋ* is used.

[24] The terms differ as follows: *sənsən* borrowed from Chinese is neutral concerning the sex of a grandchild. In addition, *sme* 'daughter' and *zi* 'son' are used also for one's grandchildren, the term distinguishing sex.

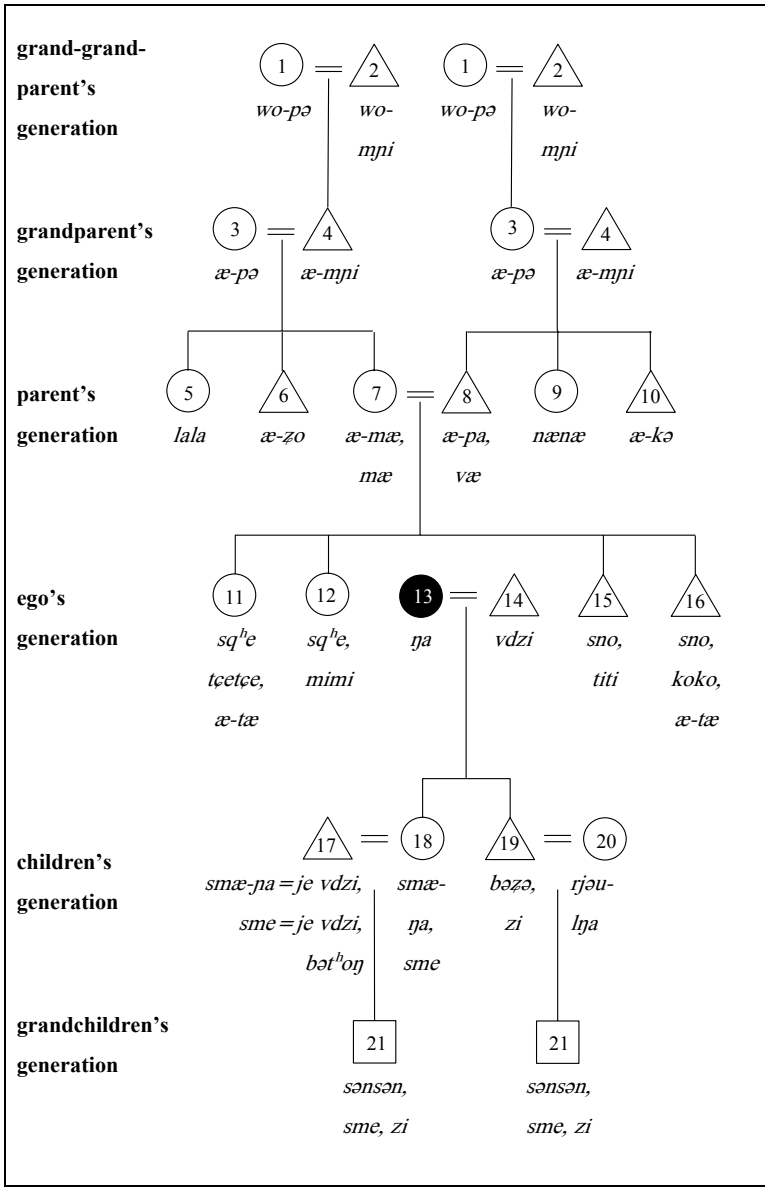


Figure 2.2b. Core blood relative terms among the Geshiza, female ego

Geshiza kinship lexicon is predominantly native, kinship terms for older kin being marked with the synchronically non-separable fossilised kinship prefix *æ-* (see §4.2.4). Kinship terms *koko* 'older brother'; *tɕetɕe* 'older sister'; *titi* 'younger brother'; *mimi* 'younger sister'; and *sənsən* 'grandchild have been borrowed from Chinese: *gēge* 哥哥 'older brother'; *jiějie* 姐姐 'older sister'; *dìdi* 弟弟 'younger brother'; *mèimei* 妹妹 'younger sister'; and *sūnsun* 孙孙 'grandson (local dialect)', respectively. Generally, the Chinese forms for siblings are now preferred over the native Geshiza terms that are used less frequently, especially by the young.

Geshiza distinguishes three generations older and two generations younger than the reference point *ŋa* 'I'. Consequently, the kinship system contains six generational layers. The terms *æ-mŋi* 'grandfather' and *æ-pə* 'grandmother' only differentiate gender and do not differentiate the paternal and maternal lineages. The same applies to *wo-pə* 'grand-grandmother' and *wo-mŋi* 'grand-grandfather' that due to space constraints are only indicated in two locations in the Figures. The terms for uncles and aunts only differ in terms of indicating the maternal and paternal lineage and do not differentiate relative age. For instance, *æ-ʑo* can refer to both younger and older maternal uncle. The terms *sənsən* 'grandchild' and *æ-tæ* 'older sibling' do not distinguish gender.

The Geshiza traditionally call their cousins simply sisters or brothers, since the language lacks dedicated lexicalised forms to encode the relationship. As in sibling terminology, Chinese loans are now frequently used for cousins. For instance, a younger male cousin may be referred to as *tiwər* from the Sichuanese Mandarin *dìwár* 弟娃儿 'younger brother'. These relatively newly introduced kinship terms the use of which seems to vary somewhat between individuals are omitted from the figures.

An important difference between the male and female egos is that males use the term *sno* for sisters, while females use the same term for brothers. In other words, *sno* is always used for an opposite sex sibling regardless of relative age. The native terms for same sex siblings also differ depending on the sex of the speaker. Females use *sqʰe* for sisters regardless of relative age, and males use *ri* and *ɕʰæne* for younger brothers, there being no native term restricted to older brother only, at least in the contemporary language. While *ri* and *ɕʰæne* are largely synonymous terms, only *ɕʰæne* is used in a metaphorical sense emphasising a strong brother-like bond between two non-related males, *ri* lacking such extended use. Finally, the borrowed Chinese sibling terms that somewhat overlap with native Geshiza terminology do not distinguish ego's sex. For instance, *mimi* 'younger sister' < Ch. *mèimei* 妹妹 'younger sister' is used by both male and female speakers.

Extended metaphorical use of the kinship terms

Geshiza kinship also terminology exhibits metaphorical extended use. Even though names (see §2.3.4) are not taboo in the presence of the referent, the Geshiza prefer the use of kinship terms to address people regardless of their actual kinship status. The terms *æ-ʑo* and *lala,* literally 'maternal uncle' and 'maternal aunt' respectively, can be used to address middle-aged men and women. For elderly men and women, the terms *æ-mŋi* and *æ-pə*, literally 'grandfather' and 'grandmother' respectively, are used. In the relatively egalitarian contemporary Geshiza society, the use of a kinship term in its metaphorical function largely depends on the perceived age difference between the speaker and the referent. There is no pragmatic constraint against using a personal pronoun, but a kinship term conveys a sense of politeness and/or closeness and is thus preferred regardless of whether the addressee is a relative or a stranger.

2.3.4. Names

The Geshiza full name consists of two parts: *jo-lmə ~ we-lmə* 'house-name' and *lmə* 'personal name'. When giving a full name, the names are quoted in this order common in East Asia, in formal contexts additionally being preceded by the village name an individual belongs to. In the case of using only one name, the personal name must be used. In sum, the maximal template for a Geshiza name takes the form (village name) + (house name) + personal name.

The house-name is generally associated with a building, and only through extension with people. It is inherited from the previous habitants of the building, which frequently means one's family and ancestors. If a house is sold and a new family moves in, the house-name associated with the building can either be changed or kept in the original form. When a person moves into a household upon marriage, he or she changes the original *jo-lmə ~ we-lmə* into that of the new home. This generally applies to women, since most Geshiza marriages are patrilocal (see §2.4.2), but also occasionally to men as well. In such cases, the husband who moved into the wife's household later manages to buy a separate house for his own family, his original *jo-lmə ~ we-lmə* is restored in this new independent household.

House-names are often etymologically opaque in Geshiza. A part of the house-names, however, originate from Tibetan. In some cases, the carriers have etymological knowledge concerning their own house-names. For instance, the house-name *ɲəma* comes from the Tibetan *nyi ma* 'Sun', while *ɕʰatɕa ~ ɕʰotɕa* with two possible pronunciations originates from the Tibetan *sha kya* 'Shakya clan'.

Since Geshiza lacks a writing system, and knowledge of Tibetan in the communities is very limited, house-names are written in Chinese transliteration using easily recognisable everyday characters. A sample of house names in Balang with their conventional Chinese transliterations is given in Table 2.1 below. Names as a whole make up the only domain in which the Geshiza write their own language down. When hearing names that need to be remembered for later use, it is common to write the names down phonetically in Chinese characters, using everyday characters that approximate the Geshiza pronunciation.

Table 2.1. Sample of Geshiza house-names from Balang

Geshiza house-name	Chinese transliteration	Chinese pinyin
æsæ	阿色	*āsè*
ɕʰatɕa ~ ɕʰotɕa	学加	*xuéjiā*
tsʰæmba	产巴	*chănbā*
luzi	六热	*liùrè*
ɲəma	尼玛	*nímă*
tɕʰəgə	甲卡	*jiăkă*

Table 2.2. Sample of Geshiza personal names

Personal Name	Tibetan Source	Chinese transliteration	Chinese pinyin
dordʑi	*rdo rje*	多尔吉	*duō'ěrjí*
joŋɖʐoŋ	*g.yung drung*	拥忠	*yōngzhōng*
nærbə	*nor bu*	拉尔布	*lā'ěrbù*
pʰənt͡sʰɔ	*phun tshogs*	彭错	*péngcuò*
rdʑæmt͡sʰo-nærbə	*rgya mtsho nor bu*	江初拉尔布	*jiāngchū lā'ěrbù*
t͡sʰeraŋ	*tshe ring*	泽让	*zéràng*

For personal names, the Geshiza mostly use pan-Tibetan names with a local pronunciation, illustrated in Table 2.2 above. Names are given by lamas on astrological basis where the main factor is the day of one's birth. The pool of frequently occurring names is limited, and several names are unisex, which is typical for pan-Tibetan names in the Tibetosphere. (Quasi-)suffixes borrowed from Tibetan are optionally used to genderise a unisex name: *-mu* for females and for *-(m)bə* males. To illustrate, the Geshiza give the unisex name *næmkʰa* to both males and females, but *næmkʰa-mu* is restricted to the domain of females only. Also, many personal names are in fact compound names (see §6.3.3 for co-ordinate compounds), consisting of two names: e.g. *nærdʑæ-ɕʰæmu* 'female name'.

Like house names, personal names are written down in Chinese characters. The used spelling varies somewhat, but many names have conventional transliterations, for example 拥忠 *yōngzhōng* for the name *joŋɖʐoŋ*. The Chinese transliterations listed in Table 2.2 are only meant as an example of how certain names are commonly transliterated in written domains, such as that of official documents.

In addition to a *bæ-lmə* 'Geshiza name, Tibetan name', children are nowadays sometimes given an additional *rdʑæ-lmə* 'Chinese name'. A Chinese name here refers not to a Chinese transliteration of an original Geshiza name, but to an independent creation that bears no resemblance to the Geshiza name either in form or meaning. Having a Chinese name facilitates integration into the Chinese society, which is likely the main reason behind parents' decision to give their children an additional Chinese name. Some parents also frequently call their children by their Chinese names and the children themselves use the name for self-reference.

Social factors and local history impose limits on name-giving. A certain historical person may have achieved great fame and importance in the Geshiza society, so that a personal name becomes associated with the individual. Such *lmə gæ-tɕʰæ* (name ADJZ-big) 'big, powerful name' are generally avoided in naming children due to their strong associations. An exemplary case is the name *(ə)pældæn,* a common name in the Tibetosphere (Tib. *dpal ldan*), yet nowadays rare among the Geshiza due to its associations with *(ə)pældæn ə̱pən* 'landlord *(a)pældæn*', a renowned and still widely-known figure in the history of Geshiza Valley prior to the Valley's incorporation to the PRC.

Table 2.3. Sample of Geshiza toponyms

Geshiza toponym	Tibetan toponym	Chinese toponym	Chinese pinyin
mdæmdo ~ ndæmdo	*mda' mdo*	丹东	*dāndōng*
bəra	*ba ra ~ pa ra ~ bod ra*	巴郎	*bāláng*
bəq^{h}o	*sbu khog*	不科	*bùkē*
xər-braŋgu	*brag 'go*	炉霍	*lúhuò*
mdo	*dar (rtse) mdo*	康定	*kāngdìng*
səʈʂ^{h}uæn	*si khron*	四川	*sìchuān*

Toponyms also play an important role in everyday life of the Geshiza. Table 2.3 above gives examples of prominent Geshiza toponyms, a more comprehensive list being available in *Appendix III*. Villages, holy mountains, valleys, and other places important to the speakers have a toponym associated with them. Geshiza River constitutes a notable exception since it is merely referred to as *ɪŋo* 'river', likely because it is the only river crossing Geshiza Valley, there being thus no need for further identification or specification for this waterway.

Rather than being purely referential, a part of the toponyms exhibits what has been called 'descriptive force', namely the ability to call into mind a property of the site or something associated with it (Hunn 1996; Nash and Simpson 2012: 393). Such toponyms, such as the compound *ra-p^{h}ru* (mountain-be.white) 'name of a mountain', have transparent etymologies resulting from a perceived feature of the referent or from a feature associated with it. In most cases, however, especially the young people are often unaware of the origins of the local toponyms. Elder people, in contrast have a deeper understanding of their possible etymologies. For example, folk etymology states that the village name *bəra* derives from *bənroŋ*, 'land/valley of Bön', or from *bənɪra* 'the cliff/horn of Bön'. These folk etymologies are based on Tibetan: *bon rong* 'Bön-valley' and *bon rwa* 'Bön-hill/horn', respectively. Alternatively, the Place Name Leading Group of Danba County in Sichuan Province (1987: 53) traces the toponym from the Tibetan *ba ra* 'cattle corral'. While the proposed folk etymologies must be dealt with extreme care, at least four prominent Geshiza place names possibly have an etymological connection with the Bön religion visible in the eroded morpheme *bə-* 'Bön': *bəgu* 'Bugu'(布谷); *bəra* 'Balang'; *bəq^{h}o* 'Buke'; and *bədzu* 'Xinxu (新区)'. Moreover, oral tradition states that *bəq^{h}o* and *bədzu* were called *bənq^{h}o* and *bəndzu* in the past, giving further evidence for the Bön link hypothesis (see §2.7.1 concerning Bön and its long presence of in the Geshiza homeland).

A portion of the toponyms has clear Tibetan etymology. For instance, the Geshiza village name *stɔsən* 'Dasang' (大桑) stems from the Tibetan *stag gsum* 'three tigers'. Here the folk etymology appears to be correct, since the vowel *ɔ* is rare in Geshiza and appears in many Tibetan loanwords. Studying the distribution of toponyms and their proposed etymologies in the context of Geshiza homeland might provide historical data about habitation and language distribution in the region in the past, an ambitious and sensitive endeavour not attempted here.

2.4. Flow of time and selected life cycle events

The passage of time among the Geshiza can be approached along two main axes: the annual cycle and the life of an individual. While the former has a cyclical self-repeating nature, the latter is linear, covering the time from birth until death. In this chapter, the description of the annual, repetitive cycle with the calendar systems (§2.4.1) is followed by that of major linear life-time events, highlighting weddings and marriage (§2.4.2); the interrelated matters of childbirth, dowry, and inheritance (§2.4.3); and death and funerals (§2.4.4).

2.4.1. Calendars and annual cycle

The annual cycle of the Geshiza follows the natural change of the seasons, as it is typical for agricultural societies. The flow of time is dotted with festivals and rituals that separate the secular from the sacred and mark the passage of time in the community. Even though both the warm and cold seasons (see §2.2.2) have festivals and rituals with fixed timing, as a general trend, summer is dedicated for work and winter for festivals, including non-repetitive events, such as weddings. Increasing migrant labour (see §2.5.3) during the cold season has somewhat altered this by enabling the Geshiza to continue earning monetary income outside the agricultural season, which makes the division less rigid at present.

While the Geshiza now commonly use the Gregorian calendar introduced by the Han Chinese, the commencement date of religious festivities and ritual activities is determined by the Geshiza version of the lunisolar Tibetan calendar, illustrated in Table 2.4 on the following page. In the calendar, a year is divided into twelve months, occasionally a *zlæɕʰɔ* 'leap month', thirteenth month being added to keep the calendar in correspondence to the solar year. The Geshiza further divide the lunar month into two periods of 15 days: *pʰru* 'white' and *ɲa* 'black'. The former cover days 1-15 and the latter days 16-30, respectively. Since the full Moon falls on the 15th day and the new Moon on the 30th, the two periods effectively correspond to phases of the Moon. In other words, the white days correspond to waxing and the black days to waning Moon. Most subdivisions of the months have regular names, e.g. *vʑəpa-pʰru* 'white days of the fourth lunar month', *vʑəpa-ɲa* 'black days of the lunar month'. However, six special names for the important subdivisions at year-end and beginning of the new year exist, indicated bold in Table 2.4 on the following page (see *Appendix II: Culture-specific lexicon* for more information on the terms and their etymologies).

Most adult Geshiza avail of two calendars in their everyday life: the Gregorian and the Tibetan. Even though the month names of the Tibetan lunisolar calendar have disappeared from common everyday use, the 'black' and 'white' cycles are still in active use, since they play a crucial role in determining the time of religious festivals and rituals, discussed below. For instance, as discussed in §2.5.2, pigs can only be slaughtered during the less auspicious black days, which makes knowledge of the two cycles essential.

Table 2.4. Geshiza version of the Tibetan lunisolar calendar

Month name	White days	Black days	Tibetan source	Gloss
tɕəpa	***læsær-pʰu***	*tɕəpɛ-ɲa*[25]	*gcig pa*	First
a̱ɲəpa	*a̱ɲəpɛ-pʰru*	*a̱ɲəpɛ-ɲa*	*gnyis pa*	Second
a̱səmba	*a̱səmbɛ-pʰru*	*a̱səmbe-ɲa*	*gsum pa*	Third
vʑəpa	*vʑəpɛ-pʰru*	*vʑəpɛ-ɲa*	*bshi pa*	Fourth
rŋæpa	*rŋæpɛ-pʰru*	*rŋæpɛ-ɲa*	*lnga pa*	Fifth
ɖzu̱pa	*ɖzu̱pɛ-pʰru*	*ɖzu̱pɛ-ɲa*	*drug pa*	Sixth
vdənpa	*vdənpɛ-pʰru*	*vdənpɛ-ɲa*	*bdun pa*	Seventh
rdʑæpa	*rdʑæpɛ-pʰru*	*rdʑæpɛ-ɲa*	*brgyad pa*	Eighth
lgupa	*lgupɛ-pʰru*	*lgup-ɲa*	*dgu pa*	Ninth
vtɕəpa	*vtɕəpɛ-pʰru*	***rŋæmtɕʰæ-ɲa***	*bcu pa*	Tenth
tɕətɕəpa	***bəmdʑər-pʰru dəu~dəu***	***væ-ntɕʰə-ɲa***	*bcu gcig pa*	Eleventh
tɕəɲəpa	***bəmdʑər-pʰru gæ-tɕʰæ***	***læsær-ɲa***	*bcu gnyis pa*	Twelfth

The Geshiza also follow the Tibetan zodiac with 12 animal signs, known as *lə-ɣæ-mne* 'twelve zodiac signs' in Geshiza. The zodiac borrowed from Tibetans is most prominently used for keeping track of people's birth years. Table 2.5 lists the animals of the Tibetan zodiac:

Table 2.5. Tibetan zodiac in Geshiza

Geshiza	Tibetan[26]	Gloss
bjəvæ-lə	*byi lo*	Rat
a̱loŋ-lə	*glang lo*	Ox
stɔ-lə	*stag lo*	Tiger
jəzuə-lə	*yos lo*	Rabbit
mbru-lə	*'brug lo*	Dragon
zbrə-lə	*sbrul lo*	Snake
rtæ-lə	*lug lo*	Horse
lu-lə	*rta lo*	Goat
spri-lə	*spre lo*	Monkey
bjæ-lə	*bya lo*	Rooster
tɕʰə-lə	*khyi lo*	Dog
pʰɔ-lə	*phag lo*	Pig

[25] The change of *a* into *ɛ* (i.e., *tɕəpa* > *tɕəpɛ*) results from the addition of the fusioned genitive case enclitic *=je* (see §5.3.3) in the month names. The month names that have been borrowed from Tibetan belong to the realm of knowledge concerning the traditional culture generally mastered by the elderly and exhibit minor interpersonal variation in pronunciation.

[26] The Geshiza *bjəvæ-lə* and *jəzuə-lə* are likely borrowings of dialectal variants *byi ba lo* and *yos po lo,* respectively.

Table 2.6. Days of the week in Geshiza

Geshiza	Chinese	Gloss
ɕintɕʰiji	*xīngqīyī* 星期一	Monday
ɕintɕʰiar	*xīngqī'èr* 星期二	Tuesday
ɕintɕʰisæn	*xīngqīsān* 星期三	Wednesday
ɕintɕʰisə	*xīngqīsì* 星期四	Thursday
ɕintɕʰiwu	*xīngqīwǔ* 星期五	Friday
ɕintɕʰilu	*xīngqīliù* 星期六	Saturday
ɕintɕʰitʰiæn	*xīngqītiān* 星期天	Sunday

Illustrated in Table 2.6. above, the Geshiza have a seven day week in which the day names have been adopted from Chinese, rather than Tibetan. Each day name is based on the temporal noun *ɕintɕʰi* 'week' that originates from the Chinese *xīngqī* 星期 'week'.

Table 2.7. Major Geshiza annual festivals and rituals observed in Balang

Date	Geshiza term	Gloss
1st month, 1st day onwards	*læsær ~ losær*	Tibetan New Year
1st month, 12th -15th	*smənlæn*	*smon lam* Prayer Festival
2th month 15th day	*zbro-tʰo ~ zbro-mtɕʰæ*	Green Beans Boiling Festival
3rd month 12th-15th days	*ʑikʰro*	Scripture Recital
in spring	*sʰævdɔ*	Spring Sacrifice
5th month, 15th day	*ʑasa*	Picnic Festival
5th month 15th day	*ristæ*	Holy Mountain Festival
6th month, 7th-8th days	*sʰəndzoɣuə*	Prayer Recital in the eastern
	mtɕʰærten ræmne	stupa of Balang Village
10th month, 25th day	*rŋæmtɕʰæ*	*tsong kha pa* Memorial
in winter	*mæne-xui*	Mani Recital

Table 2.7 above lists the major annually recurring festivals and rituals of Balang, each described briefly below. While many of these are shared by other Geshiza villages, adjacent ethnic groups, and even my most Tibetans, each village has its local flavour of annual events, and no universal conclusions applying to the whole Geshiza Valley can be drawn from this brief case study. As a general trend, with each new generation, the consciousness concerning the essence and meaning of the various festivals and rituals is becoming slightly vaguer. While this also likely results in gradual simplification in religious ritual practice, the issue would need a more extensive survey than the one offered herein. Also, since I have personally attended only a part of the discussed festivals and rituals, in the following sketch, I rely partly on the locals'

descriptions, rather than on first-hand knowledge. In Balang, all festivals and rituals except the pan-Tibetan Tibetan Buddhist *tsong kha pa* Memorial take place only during the white days that are considered more auspicious than the black days.

Tibetan New Year and *smon lam* Prayer Festival

The first month of the Tibetan calendar is filled with festivities and celebration. At the turn of the Tibetan year, the Geshiza celebrate *læsær ~ losær* 'New Year' (Tib. *lo sar* 'New Year'). In contrast, *rd̥zæ-læsær* 'Gregorian New Year', lit. 'Chinese New Year, foreign New Year (n.b. different from 春節, Chinese New Year in January or February)' lacks a prominent position among the Geshiza annual festivities. During the past two months before the festivities of the Tibetan New Year, the households apply *ts^{h}ə-p^{h}ru* (dirt-be.white) 'white-dirt', a new layer of paint made of white soil on their houses. The white paint can only be applied on the auspicious 'white' days of the lunar months. The meaning of this repainting has become opaque among the Geshiza. According to Suzuki (2011: 136-138), the origins of house repainting lay in signalling that it is time for *dmu rdo* (see §2.7.1), a mythical hero and protector deity, to come for visit.

Many Geshiza engage in year-end shopping in Danba County Town. They celebrate the Tibetan New Year through festivities, such as dancing with traditional dresses. As the last day of the year, New Year's Eve (Ge. *a̠næmgo*; Tib. *gnam gang*) is considered the most auspicious day of the year. The Geshiza engage in communal merrymaking and few people go to sleep before the year has changed. The New Year celebrations are followed by *smənlæn* prayers at a temple, corresponding to the Tibetan *smon lam* Prayer Festival. However, while *smon lam* in general observance takes place from the 4th until the 11th day of the first lunar month, several separately interviewed Geshiza report celebrating *smənlæn* for four consecutive days from the 12th to the 15th days of the first lunar month, directly after which the first 'black' day brings an end to the New Year festivities. The two festivals of the New Year and *smon lam* form a continuum and make up the longest festive season in the Geshiza calendar. People enjoy more than two weeks of holidays, the longest continuous annual break from work.

Green Beans Boiling Festival

In the second lunar month, the Geshiza celebrate *zbro-t^{h}o ~ zbro-mtɕ^{h}æ* 'Green Beans Boiling Festival'. Villages bring one bowl of green beans per household to the village square where they are boiled in a large cauldron. *a̠væl* 'Bön or Buddhist shamans, lay specialists' attend the two-day festival where they perform the *a̠to* ritual (see §2.7.1. *Bön*). In the evening, every household receives a bowl of the boiled beans that have become blessed. In each room, a couple of boiled green beans are sprinkled as an offering, the family eating the remaining ones.

According to some speakers, the Green Beans Boiling Festival is organised to invoke blessings and protection from *æmɲi skældoŋ,* a Geshiza folk hero. Alternatively, a folk story told by an *a̠væl* attributes the festival to commemoration of a heroic figure named *æmɲi ismær*

rdʑælpo, but this name might be merely an alternative label to *æmɲi skældoŋ*. Since folktales are currently disappearing among the Geshiza (see §2.7.4), many details of anthropological value are increasingly being mixed up in storytelling, underlining the importance of urgently documenting the oral artforms. Discussing the Gyalrongwa of Dangba (党坝), Prins (2006) shows that *a mye sgo ldong,* a Gyalrong folk hero conquering the evil forces, is received into the community every year upon the New Year celebrations. Against this backdrop, the Geshiza Beans Boiling Festival that takes place when winter finally passes, and the nature regains its green colour might reflect an ancient Gyalrongic New Year festival superseded by the present *læsær* celebrations, but also the issue needs more research to be corroborated.

ʑikʰro Scripture Recital

In the third lunar month, the Geshiza celebrate the *ʑikʰro* Scripture Recital Festival for four days. Several *ɐ̯væl* and some monks from Buke monastery arrive in Balang Village to perform *ɐ̯to*.

Spring Sacrifice

A series of ritual sacrifices are organised in the spring on the white days of the spring months, going under the name *sʰævdɔ* (Tib. *sa bdag* 'earth-owner spirits'). The *ɐ̯væl* use fortune telling to determine the order in which each household performs the ritual. A household responsible for the ritual hires shamans to perform the *ɐ̯to* ritual, accompanied by ritual music by drums, cymbals, and trumpets. A sacrifice made of juniper is constructed on the rooftop in the direction of the holy mountain and fields, subsequently sanctified by the *ɐ̯væl*. The ritual culminates in a burning sacrifice that resembles regular juniper burning on the rooftop, albeit in a larger scale. While some consider the holy mountain the target of the sacrifices, other Geshiza describe *sʰævdɔ* as being conducted for the field-owner spirits so that they will guarantee a plentiful harvest in the newly starting agricultural year. The two viewpoints are not necessarily mutually contradictory, since linking of *sa bdag* to holy mountains is known among the Tibetans (see Stein 1972: 203).

Picnic and Holy Mountain Festivals

In the fifth lunar month, *ristæ* Holy Mountain Festival and *ʑasa* Picnic Festival take place on the same day. First, in *ristæ,* Balang Villagers visit their holy mountain. The tradition states that each household must send a man to participate, but some women also participate. After the visit to the holy mountain, and *ʑasa* Picnic Festival takes place. In a picnic-like manner, people from multiple eastern Geshiza Valley villages gather to set up tents, dance and compete in horse racing. The horse race is relatively well known regionally, and even outside competitors, e.g. from Daofu County, come to participate.

Prayer Recital in the eastern stupa of Balang Village

sʰəndzoɣuə mtɕʰærten ræmne festival takes place in the sixth lunar month at *sʰəndzoɣuə* (toponym) *mtɕʰærten*, the eastern Stupa of Balang. The festival lasts two days and in addition to *ræmne*, reported as a type of *ạto*, being performed, the event additionally includes communal eating on the grass field and giving *ndʑæ* '*dāna*, gifts' to other people.

tsong kha pa Memorial Festival

On the 25th day of the tenth month of the Tibetan calendar, the Geshiza celebrate *ɳæmtɕʰæ*, '*tsong kha pa* Memorial Festival' (Tib. *dga' ldan lnga mchod* '*dga' ldan* offering of the [twenty]-fifth'). The festival is a popular event in the Tibetosphere. It commemorates the parinirvāṇa (passing followed by nirvana after death) of *tsong kha pa*, the founder of *dge lugs* (Ge. *rgelu*) school of Tibetan Buddhism. Before the festival, turnips are carved and filled with butter. On the festival evening, hundreds or even thousands of small lanterns are light, filling the whole Geshiza Valley with dots of light. In addition to placing one lantern to each room of a house, the Geshiza place the bulk of the lanterns on the rooftop. The lighting of the lanterns is accompanied by playing religious music, nowadays even using cell phones. The Geshiza believe that the lanterns to protect the family members and bring good luck into the household.

Mani Recital

Monks from a near-by *dge lugs* monastery arrive once a year in Balang for a *mæne-xui* 'Mani (Recital) Meeting', an event including the recital of scripture by monks and of the mantra *oM ma Ni pad+me hU~M* collectively by the participating villagers. A *zɔtæ* 'altar with gifts for the deceased', is built at the central square of the village. In the afternoon, the altar with its offerings is burned to send the gifts for the deceased family members. To cover the incurred costs, every household contributes with one hundred yuan (as of 2018) towards organising the recital. The scripture itself is recited in Tibetan, but the invited monks give a sermon or a teaching part in Geshiza understood by everyone. In addition to receiving religious teaching, the recital offers the villagers the possibility to gather together and socialise outdoors. People converse with their relatives and friends while listening to the recital at the public square. The Mani Recital Meeting is possibly influenced by the Tibetan *ma ni dung sgrub* 'hundred million mani recitations', a festival of mani recitation celebrated in winter time (see Tucci 1988: 170). In the 12th Tibetan lunisolar month one chanting of *oM ma Ni pad+me hU~M* is considered 100,000 times more efficacious than on other occasions (G.yu 'brug and Stuart 2012 2012: 185). For this reason, *mæne-xui* is commonly held in this month. Balang villagers report the religious event to be an innovation far more recent than the other annual festivities discussed above, only dating back several years. Also, the festival is distinctly Buddhist, yet all Balangers who are predominantly followers of Bön nevertheless participate (see §2.7.1 on religious syncretism).

Jiarong Charm Festival

Finally, as a secular, government-organised modern event for promoting tourism, the annual Jiarong Charm Festival (嘉绒藏族风情节) takes place at the end of October. It includes annual dance performances and a beauty contest held every three years. In addition to a multitude of domestic and scores of foreign tourists, many Geshiza also attend the popular Festival. Jiarong Charm Festival has contributed towards the conscious attempt of creating a 'Valley of Beauties' (美人谷) brand for Danba County, referring to the notion of presenting Tibetan ladies of the County as paragons of feminine beauty (see Jinba 2014: 59-60).

2.4.2. Weddings and marriage

Geshiza marriages are ethnically endogamous, but this appears to be slowly changing due to increasing interaction with Han Chinese immigrants into the region. Most weddings with outsiders take place between ethnic Tibetans, the ethnic group with which the Geshiza associate themselves. The bride and groom may be from the same village, but inter-village marriages with ethnic Tibetans have become increasingly common, even including ethnic Tibetans outside Geshiza Valley. The small size of the villages and people's increased movement contribute to this trend. The current trend is neatly summarised by a retired Geshiza lady on the following page:

> *They (the young people) are going everywhere to look for temporary employment, right? They go everywhere to look for temporary employment, so our people marry Tibetans from the Tibetan Autonomous Region.* […] *We are becoming mixed now; we have become like that indeed.*

Because of scarce working options in the home county, many women have travelled to the large regional cities, such as Kangding (Ge. *mdo;* Ch. 康定) and Chengdu (Ge. *rdʑæjin, ʈʂʰəndu;* Ch. 成都) to find work and make a living. This has resulted in a shortage of brides in the villages. In addition, some are attracted to the prospect of leaving the agricultural lifestyle, making a marriage with a Han Chinese residing in a city an attractive option. While being less numerous than marriages with other Tibetan groups, interethnic marriages with Han Chinese also occur nowadays.

Types of marriage

In a patrilocal (virilocal) marriage, the wife moves into the husband's household, while the opposite happens in matrilocal (uxorilocal) marriage. Distinct from the two, in a neolocal marriage, the married couple settles into a location distinct from both the husband's and wife's natal households. When the Geshiza marry, the oldest son typically stays in his natal house and the younger brothers leave the home, which makes marriage patrilocal in the former and neolocal in the latter case. As an exception, the groom can move to the bride's household if it

has no sons, which results in a matrilocal marriage. The underlying principle in the marriage customs is not to split land holdings. Current marriages are all monogamous, but oral tradition recalls a polygynous time in the past when a part of wealthy men used to have two wives. In contrast, unlike parts of Tibetosphere, collective memory agrees that (fraternal) polyandry has never been practiced by the Geshiza.

Arranged marriages in which intra-village relationships, social status, and possessions served as an important factor in determining a suitable marriage partner were common in the past. The planned couple had little to say concerning their prospective marriage, in extreme cases even facing threats of violence for failure to comply. The parents of a son who had reached a suitable age for marriage dispatched a *(rjəu)-rjæ-ɕə-me*, lit. '(wife)-ask-goer' to the house of a planned marriage partner, customarily carrying a bottle of alcohol. If the negotiations reached an agreement, the couple would marry. This has now changed and arranged marriages do not occur anymore. The young now choose their partners based on mutual affection, while the role of *(rjəu)-rjæ-ɕə-me* has completely disappeared from the Geshiza society.

Geshiza weddings

The *stærmu* 'wedding' is an event celebrated and prepared by the whole village (see Figure 2.11 at the end of the chapter). Since agricultural work mostly takes place during the summer, weddings are generally celebrated at winter during the months of *bəmdʑər gæ-tɕʰæ* and *læsær-pʰru* around the New Year time. The main preparations start two days before the wedding ceremony. Women clean the village square while men build up a platform with a stand for the banner exhibiting the picture of the wife- and husband-to-be. Geshiza lacks any means of writing, and the use of Written Chinese has become established as the regional written lingua franca. The text in the banner is thus written in Chinese. The preparations continue until the next day when guests from the outside of the village arrive. Eating and drinking play an important role in weddings. A lavish dinner is served for the honour of the couple and the guests with many toasts. Custom requires that the number of *kʰe* breads (see §2.6.4) must exceed the number of family members in the bride's family by one.

In the common patrilocal case, a ritual involving the bride moving to her new household takes place on the wedding day. The side who 'gives out' a bride is called *rjəu-kʰo-me*, lit. 'wife-giver(s)'.[27] When the bride moves from her native home, she is typically accompanied by *ŋgræl-me* (lit. 'line-uppers'), people who see her off. The *ŋgræl-me* are typically her close friends. In turn, the groom's side sends the *skʰəre-me*, lit. 'shouters' to receive the bride, meeting the *ŋgræl-me* on the way. These activities take place in the morning, after which time is ripe for conducting the wedding ceremony.

The wedding ceremony itself takes place in the late morning of the wedding day. Few decades ago, weddings were simple occasions, but the current emphasis on an imposing form

[27] In the opposite matrilocal scenario, the side 'giving out' is *bətʰoŋ-kʰo-me* 'son-in-law-giver(s)'.

results from cultural borrowing from Han Chinese. To make it possible for the non-Geshiza guests from the outside to understand the proceedings, the wedding can nowadays be conducted in Chinese. A wedding host may also work together with a DJ who is responsible for the wedding music. The bride and groom walk to the platform where the guests offer them *kʰædær* (Tib. *kha btags*), traditional Tibetan scarfs. The ceremony ends after speeches and song performances. Subsequently, the guests proceed to eat the wedding lunch with toasts for the newly-wed couple being raised. In sum, contemporary Geshiza weddings are much loved events in the communities uniting both traditional elements and new features borrowed from the Han Chinese.

Marriage and language

Marriage is an important institution even from a linguistic viewpoint. Even though Geshiza-Chinese bilingualism is the most prominent multilingual feature of the area, the binary model somewhat simplifies the actual multilingualism present in the Geshiza homeland. Among others, this constitutes yet another topic for further research from a sociolinguistic viewpoint. The Geshiza occasionally marry into one of the surrounding ethnically Tibetan groups, such as the Bawang. While using Chinese as a lingua franca is also common in interethnic marriages, they occasionally result in acquiring a new language through exposure. Conversely, when a person from another group moves into Geshiza Valley upon marriage, he or she may acquire language through everyday use. Such inter-group relations mean that a part of the regional population speaks at least one other non-Sinitic language as a second language, and the children may grow bilingual, such as a Bawang man I met, who was able to switch freely between Bawang and Geshiza, the languages of his father and mother. Due to considerable similarities between Geshiza, Stau, and Bawang, learning a new language even at adulthood merely through exposure does not present insurmountable difficulties. The same does not hold between a Horpa and non-Horpa language. Consequently, further studies may reveal that marital bilingualism, among others, also depends on the languages involved.

Historical reports on Geshiza marriage practices

In a piece of missionary literature, Jeffrey (1974: 49-50) reports that in the past, the Geshiza and Bawang considered the unmarried females to belong to the mountain deity *dmu rdo* (Ge. *mærtə;* Ch. 墨耳多山; Tib. *dmu rdo*; see §2.7.1) in a relationship tantamount to marriage. Consequently, when a woman married, a ritual divorce from the deity with propitiation was necessary. Jeffrey continues that unmarried women wore ‘an indecent dress’ indicating their belonging to the deity. The dress was forbidden both by authorities from Beijing and Lhasa, yet only ridicule from the local Han Chinese led to abandoning of the custom. The earliest Western source of the story appears to be Edgar (1924), yet another missionary source from among the neighbouring Bawang and Badi, deemed imaginative by G.yung 'brug and Rin chen do rje (2010: 74). Wu (1875), however, also describes historical the regional dressing habits somewhat

similar to the missionaries. Also, Epstein and Peng (1999: 332) highlight the role of fertility as a defining feature associated with pilgrimage to *dmu rdo*. In any case, no accounts among the Geshiza were found to confirm the veracity of the historical 'ritual marriage' affecting culturally required dress code. The Geshiza disbelieve the existence of such custom in their homeland in the past and no relevant oral tradition known to the elderly survives, which would be expected if this relatively recent custom was really practiced also in Geshiza Valley. For the lack of further data, there are two possible interpretations concerning the alleged custom. It may be imaginary or misrepresented outsiders' depiction of the locals in a negative light indirectly highlighting their own perceived cultural supremacy. Alternatively, the custom existed, but it was restricted to villages at the proximity of *dmu rdo* only.

Divorces

Divorces are rare among the Geshiza, but nevertheless culturally acceptable. They now occur more frequently than in premodern times. In this, the Geshiza reflect the soaring divorce rates in China as a whole. The tradition of divorce predates the incorporation of the Geshiza homeland into the PRC, but in the present era, divorces must be conducted along the legal requirements of the State. In comparison to cases in which a couple has remained childless, after a couple has children, it is rarer to opt for a divorce. If divorce happens, the custody of the children varies. Once divorced, both male and female Geshiza may freely remarry.

Heterosexual marriage as the cultural norm

Homosexuality, for which there is neither general awareness among the Geshiza nor established lexical expressions in the language, is not openly manifested. Homosexual cohabitation is unheard of among the Geshiza where finding a partner of the opposite sex remains the cultural norm for laypeople who marry. While a heterosexual relationship is commonly expected to lead into a marriage, cohabitation without marriage is nevertheless culturally acceptable, yet it remains rare. Also, while the oral tradition states that *wdælə* 'illegitimate children' were more common in the past, it is now highly unusual for children to be born out of wedlock.

2.4.3. Childbirth, dowry, and inheritance

At present, the Geshiza report being allowed to have up to three children if they are registered as residents in the villages, a fourth child resulting a fine. In the past, Geshiza ladies gave birth in an emptied barn, where they potentially spent considerable amount of time before finishing the labour. This custom, however, has been discontinued. Most Geshiza now follow the development of a foetus and give birth at the County Town hospital. Following the birth of a new baby, women are expected to deliver gifts to celebrate the birth of a new community member. Men are not supposed to take part in this activity.

Childbirth is closely related to the concept of *skræ* 'division of property (noun); to divide property (verb)' that plays an important role in the Geshiza customs. In the patrilocal scenario,

skræ is given by the bride's family. Conversely, in a matrilocal marriage, it is given by the groom's family. The underlying principle can be thus formulated as follows. The side whose child moves away from a natal home must divide the family property, so that a part of it moves to the child's new place of residence. Land is never divided (see also §2.4.2). The *skræ* is by nature both intergenerational and interfamilial. It resembles the customs of dowry and inheritance present in other cultures.

In the Geshiza society, one nuclear family customarily inhabits one house. As discussed in the previous subsection, when the children become adults, the older brother stays with his parents while the younger brother is expected to move out from the natal house. In a neolocal marriage, the need to either build or buy a new house causes major financial burden to the younger brother who is financially at a disadvantaged position. Consequently, *skræ* to the brother who leaves the family house offsets this imbalance. In sum, most Geshiza follow the tradition of *skræ* in all three existing marriage patterns.

The timing of *skræ* varies. It can be given at the birth of the first child or in rarer occasions, at the birth of the second child of a couple. The custom is followed regardless of the child's sex. If after several years after the wedding no child to a couple is born, however, *skræ* is nevertheless given. The *skræ* consists of both practical and ritual objects, including clothes, carpets, blankets, jewellery, and cash (see Figure 2.12 at the end of the chapter). Many of the given precious objects are *a̱na-rdʑə* 'ancient family heirlooms' that are passed on from one generation to the next. The various objects are placed on the rooftop for everyone to marvel. An *a̱væl* recites scripture and the objects to be given away are blessed, after which they are received by the relocated family member who subsequently takes them to the new house.

2.4.4. Death and funerals

When a person dies or falls seriously ill with death as a possible result, festive activities are temporarily discontinued. Dying at home surrounded by the family, rather than in hospitals, is still relatively common among the Geshiza, yet local and even distant hospitals are used for seeking medical treatment when necessary. While many western societies suffer from ever increasing 'medicalisation of death' (see Illich 1976 for a pioneering treatment), it remains largely absent among the Geshiza.

After death occurs, the body is kept in a casket at home and an *a̱væl* is contacted to divine the funeral day. The divinations typically result in a funeral (Ge. *pʰjo* 'to see off') in three to seven days after the demise. The time between the death and the funeral day is dedicated for *ruə jə* 'to have a vigil', lit. 'to guard the body' during which the family and friends visit and stay close to the deceased. Monks and *a̱væl* perform *a̱to* recitation from a separate room. A folk belief states that cats should in no case be let in to bite the body, lest it turns into a *ruloŋ* (Tib. *ro langs*) 'risen corpse, Tibetan-style zombie corresponding to Sanskrit *vetāla*' (see Wylie 1964 for a brief introduction to the concept). Such beliefs on the need to keep cats' from entering the mortuary chamber lest they disturb the peace of the deceased are reported more widely in Asia,

see e.g. Brother Anthony of Taizé (2013: 57-59), a compilation of ghost stories from Korea collected by the early missionaries.

At present, the Geshiza primarily follow inhumation and cremation. In the former case, the body must be buried inside a *pʰombowa*, designated grave(yard) area on the mountain slopes outside the settlement parts of a village deemed suitable for burial. A grave's location is marked, usually with stones and a small incense burner inside which there is a space for butter lamps. White quartz stones are usually put on graves. Cremation provides a common alternative for inhumation. In the past, cremation was frequently accompanied by water burial, but this practice has been discontinued. In water burial, the remaining bones were pulverised after cremation, then mixed with tsampa flour and fed to the fish in Geshiza River. Unlike some other ethnically Tibetan groups, the Geshiza do not practise Tibetan sky burial (Tib. *bya gtor*), but occasionally attend such events in other counties, if invited.

In the funeral ceremony, visitors are expected to bring gifts for the family of the deceased, two male relatives of which undertake the roles of *stʰa-me* 'gift collector' and *ræ-me* 'scribe', respectively. The gift collector receives the gifts brought by the funeral visitors while the scribe meticulously records the names of the guests together with the type and quantity of the gift in a *ɣəju* 'account book'. The work of the scribe is undertaken by a relative that has a high command of Written Chinese, the regional written lingua franca. In return, the tradition dictates that the participants of a funeral be issued salt, tea, needles, and thread as a return gift.

rgeva (Tib. *dge ba* lit. 'merit, virtue'), a merit-making funeral ritual is organised 49 days after death. Tibetan Buddhism considers the period between death and rebirth to be 49 days, so at the end of the period, *rgeva* guides the deceased into a new rebirth. Among the Geshiza, followers of both Tibetan Buddhism and Bön practice this Buddhist ritual. From the viewpoint of folk religion practiced syncretically with formal, dogmatic religion, the process of death finally culminates in the person becoming an ancestor spirit who inhabits the *we-lməu* room of the house (see §2.6.1). The Geshiza thus have several coexisting after-death beliefs that are not necessarily perceived to stand in contradiction.

In addition to the constant house cult of the ancestors (see §2.7.1. *Ancestors*), the Geshiza bring butter lamps and incense three times a year to the graves: on *tsong kha pa* memorial festival, Tibetan New Year, and Tomb Sweeping Day (清明节). Of the three, celebrating the Tomb Sweeping Day has been borrowed from the Han Chinese. Bringing the children of the family together to the mountain slope on these occasions teaches them where the family graves are, so that they can continue the tradition as adults.

2.5. Economic structure

This section examines Geshiza economy with the goal of showing how traditional economic structures coexist with an increasing integration into the Chinese economic order with global connections. Starting with an overview of Geshiza economy and its development trends (§2.5.1),

the discussion moves to agriculture and domestic animals among the Geshiza (§2.5.2), finishing on the role of migrant labour and other sources of income (§2.5.3).

2.5.1. Overview

Geshiza villages are relatively egalitarian communities. In the past, subsistence farming, namely growing agricultural products for the immediate needs of the family with little surplus for trading, provided the main source of livelihood for the villagers. After the Geshiza homeland became part of the PRC in 1950, the State now owns all farm land and leases land rights to farmers for long contract periods. Since not all farming products are consumed locally, but rather sold as a means of gaining income, the term 'subsistence farming' is somewhat inaccurate to describe the present role of agriculture among the Geshiza. Contrasting with parts of the Tibetosphere, nomadic pastoralism is absent in Geshiza Valley. Even from a historical perspective, the Geshiza communities appear to have been agricultural, rather than pastoral (see §1.1.3 for more evidence in the context of autoglossonyms and ethnonyms).

Nowadays, main income among the Geshiza derives from two distinct sources: agriculture and migrant labour. The presence of the Chinese State has created new job opportunities with more mobility and inter-ethnic interaction following. People now travel to Danba County Town and other locations outside their native villages to gain supplementary income when agricultural work allows this to happen. The County Town also functions as the largest regional market from where the Geshiza purchase products and services that cannot be produced locally. In contrast to the largely mono-ethnic and mono-cultural Geshiza, many economic spheres in the County Town are dominated by Han Chinese immigrants.

The Geshiza economic structure is at present largely integrated into the Chinese monetary economy. The main word for money itself, *pʰiəutsə*, is a Chinese loanword: *piàozi* (票子) '(paper) money', lit. 'piece of paper'. The exchange works bidirectionally. While the surplus agricultural products and cash crops are sold to Han Chinese, the Geshiza purchase products and services that cannot be produced or provided locally from Han Chinese. Payment is mostly restricted to notes only. Since the Chinese coins are now of low value, they are only accepted in the County Town, but not in the surrounding countryside where the smallest unit of financial transaction has become the one yuan note. Also, mobile payment systems, such as that of the Weixin/WeChat application, are gaining a foothold among the Geshiza, just like in China in general. Now one can occasionally see the Geshiza paying their meal in a simple noodle shop with their mobile phones, a rapid change that has taken place during the recent years.

2.5.2. Agriculture and domestic animals

The climatic conditions in Geshiza Valley are milder than in many of the surrounding areas at higher altitudes, such as Daofu and Luhuo Counties, which makes it possible to gain two main harvests a year. For instance, corn is planted biannually. The Geshiza become occupied with agricultural work in the summer (see Figure 2.13 at the end of the chapter) whereas the winter

is a less busy time when many have time to seek employment in Danba County Town.

The Geshiza cultivate wheat, corn, turnips, potatoes, peas, beans, walnuts, grapes, and the pungent herb prickly ash (*Pexricarpium zanthoxyli*, also known as Sichuan pepper). Only a part of the agricultural produce has a long history in the region, since Han Chinese migrations during the Qing Dynasty resulted in introduction of many new plants, most notably corn and potato (see Qin 2013: 64). Wheat and corn are consumed locally, a great deal of corn being used for pig fodder, rather than being produced for human consumption. The most important agricultural products farmed for selling are walnuts, prickly ash, pepper, and grapes.

The Geshiza mainly keep pigs, cows, and dogs, also feeding village cats without fixed owners (see Figure 2.14 at the end of the chapter). These animals constitute an integral element of village life, but they are not given names. Each major type of the domestic animals is called to come towards the speaker with a different summon call. For instance, cats are summoned with *lu~lu~lu~lu~lu* while the chickens are addressed with the onomatopoeic *ku~ku~ku~ku~ku* (see §4.12.2 for animal-calls). The existence of a distinct summon call shows the status of an animal as a historical domestic animal, since only domestic animals have summons. Consequently, in addition to the animals listed above, Geshiza also used to have horses, goats, and sheep as domestic animals, all less common nowadays, yet confirmed by local histories and through interviewing the elderly. Due to modernisation in transportation, horses are rarely seen in Geshiza Valley nowadays. Extensive horse-related vocabulary, such as *mtʰər* 'reins, bridle', *rtæ-ko* 'stable', and *zga* 'saddle', nevertheless shows the considerable historical significance of the horse in the past.

Pigs are pivotal for the Geshiza and they consume the major portion of the corn harvest. Unlike dogs, cats, and cows, pigs are not allowed to roam around freely, but are kept in pigsties adjacent to main houses. Pigs are slaughtered once in a year, usually in the early winter. This important day that must not fall on the auspicious *pʰru* 'white' days of the lunar month (see §2.4.1 for the Geshiza lunisolar calendar and *Appendix II: Culture-Specific lexicon* for the related month name *væ-ntɕʰə-ɲa*), which nevertheless happens on rare occasions due to tight schedules. Men perform slaughtering and processing of the meat in a team. Slaughtering takes place in turns, mainly relatives going to help each other, which reflects the Geshiza principles of reciprocity (see §2.7.3). The elderly narrate that the Geshiza practiced strangulation as the preferred butchering method, but moved into using knives in recent past. After an animal is killed and its blood drained, hot water is applied on it to facilitate the removal of hair. The hair is consequently removed and the surface treated with a blowtorch. Following, the organs and intestines are taken out with the help of a knife and the hands. The meat is then cut into more manageable pieces and salted for preservation. The resulting *ntʰu ʂærpa* 'new meat' is deemed especially delicious and consumed with delight in a feast. In the past, the Geshiza also used the annual slaughter days as an occasion to tell stories (see §2.7.4 for the Geshiza oral tradition).

At present, part of the agricultural work is performed by outsiders, which illustrates a

more sophisticated division of labour in the modern economic system. A dedicated *va-ra-me* 'pig castrator and spayer', lit. 'pig-hitter' circulates the villages to neuter pigs, indicating his presence by the sound of a small cymbal-disc. In the past, this work used to be carried out by the Geshiza themselves, but nowadays the work has been taken over by the Han Chinese. Tasks of a *va-ra-me* include castrating boars and removing sows' uterus as a means of birth control. While some Geshiza men still perform the castration themselves, the more challenging uterus removal operation is now in virtually all cases left to male professionals from the outside.

2.5.3. Migrant labour and other sources of income

Agricultural work is by nature season intensive. Especially during winter when agricultural work has ceased, many Geshiza travel to the regional centre of Danba County Town or other locations outside their home village to seek temporary employment. Others decide to migrate permanently or semi-permanently into the towns and cities of the surrounding region. Such migrant labour contributes to brain drain, since the most talented individuals are attracted by professional prospects that are more plentiful outside the village environment.

In the past, Danba Mica Mine (丹巴云母矿), one of the leading mines of its kind in China at its time, offered ample job opportunities in Eastern Geshiza Valley. Currently, jobs in taxi driving and road construction are booming in the growing Danba County Town, the physical appearance of which is undergoing a great and rapid change. Driving has become a popular career option for males, to the extent that the County government was forced to set a limit of 106 allowed taxis in the County Town. As of 2019, depending on its nature, migrant labour in the city brings a daily income of between approximately 150-300 RMB, which greatly contributes towards a household's total annual income. Migrant labour among the Geshiza is also having linguistic repercussions, since it exposes the migrant workers to the economically dominating Han Chinese in a working environment, which reinforces the mental assimilation of the Chinese language with power, wealth, and social mobility. If sustained over long periods, such exposure likely further increases the use of Chinese in other domains as well.

In addition to agricultural work and migrant labour, Geshiza homeland presents few employment opportunities. To illustrate supplementary income sources at Balang, one family runs a *zjə~zjæ-ko* 'small shop'(小卖部) from their home, selling small items, such as snacks for children and instant noodles. The village also has one specialised cook who comes to help at the times of festivities, such as weddings. For his services, the villagers give him a Tibetan *kha btags* ritual scarf together with a salary of approximately 200 yuan, cigarettes, a bottle of alcohol, and pork meat.

Harvesting caterpillar fungus (*Ophiocordyceps sinensis*) has become a major contributor to income in rural Tibetosphere in the past decades. This is due to great increase in its price caused by an increased domestic and international demand, even to the extent that it has become one of the main sources, if not even primary, of household income (see Ryawec 2015: 172; Winkler 2008). The recent commodification has nevertheless not affected the Geshiza.

2.6. Material and culinary culture

This section broadly examines the physical manifestations of Geshiza culture. The focus is laid on towers, houses, and architecture (§2.6.1); tools and objects (§2.6.2); clothing (§2.6.3); and cuisine (§2.6.4).

2.6.1. Towers, houses, and architecture

Dominating features of Geshiza buildings reflect the Tibetan architectural style with local characteristics. Due to increasing interaction with Han Chinese and modernisation, Chinese architectural style is also gaining a foothold among the Geshiza. Below, towers, a regional feature, and Geshiza houses are examined in more detail:

Towers

Danba County is known for its *mkʰær* (Tib. *mkhar* 'tower, fort, citadel'), often colossal stone towers present in the County. While the neighbouring Suopo is best known for the stone towers, several towers remain in Geshiza Valley as well. For instance, Dasang Village has a tower that stands relatively intact externally (see Figure 2.8 at the end of the chapter). Oral tradition states that the towers were more numerous in the past. Taking samples from small pieces of wood to minimise the distortion in dating caused by wood reuse, Darragon (2005) reaches the conclusion that these towers were built between 500 and 1200 years ago.

The towers continue to fascinate people and their actual function is still under debate. Many theories concerning the purpose of the towers have been proposed. The stone towers have been variously interpreted as watchtowers for defence, signal towers, village location markers, status symbols, and buildings of religious significance, but instead of a single explanation for the purpose of the stone towers, they likely had several functions that changed with time (Burnett 2014: 70-73).

Houses

Not only the stone towers, but also ordinary houses in Danba are impressive and heavy-built fortress-looking structures with walls that slope inwards (see Figure 2.7 at the end of the chapter). The Geshiza call their houses *bæ-we* 'Tibetan house' and *roŋ-we* 'local house', originally 'farmer house', in contrast to *rdʑæ-we* 'Chinese house'. Adopting Chinese design, at least in part, is now becoming commonplace in newly built houses. In comparison to Daofu County where wooden construction is common, village houses in Geshiza Valley are primarily constructed from piled stones with additional minor wooden structures at the higher floors. In Balang, most of the houses are relatively new. The relatively new housing in the results from the custom that the houses must be rebuilt at least approximately twice in a century to make them better withstand the harsh and wearing natural conditions.

Geshiza houses are partially painted with three colours: red-brown, black, and white.

While white paint dominates, the upper structures include a red-brown and black stripe. In the past, people obtained the raw materials for the paint from the nature, but purchasing Chinese-made colours has become the new norm now. A new layer of paint is applied once a year in winter time before the New Year, necessarily on the auspicious *pʰru* 'white' days of one of the two last lunar months (see §2.4.1 for the lunisolar Geshiza calendar). To celebrate the finished work, some families in the villages play religious recordings that can be heard in the villages.

The layout of individual houses varies somewhat, but virtually all houses have two habitable floors, a wide rooftop floor and a fourth rooftop floor with a small temple. Describing a possible layout with the main rooms, a Geshiza house has *rævəu* 'barn' located partially underground. Animals, particularly pigs, may also be kept in a separate pigsty-barn. After entering the main house complex through the main gate, one comes to *patsə* (from local Sichuanese Mandarin 坝子) 'open ground' where many daily activities are carried out and children play. The open ground provides access to rooms on the first floor. Guests are entertained in *ɣæ-kʰa-kʰoŋsoŋ*, the first floor living room that is nowadays frequently equipped with a large television set. The Geshiza cook in *rdʑæ-tʰəu-wa,* also known as *rdʑæ-tʰəu-ko*, the modern kitchen. Traditionally, however, cooking is said to have been done in the *we-lməu* room (锅庄房) that still contains a *mbəzli* 'ritual tripod' no longer in use (see Figure 2.15 at the end of the chapter). The *we-lməu* room constitutes one of the spiritual centres of the house, since the ancestors inhabit the room where they receive regular sacrifices from their descendants living in the house. The first room also typically contains storage space, a bedroom, toilet, and a bathroom.

Moving the stairs up to the second floor, the house contains more storage space and bedrooms. Some of these rooms, such as *bær-ko* 'middle room' were historically used for fodder storage, but have been converted into other use due to changing lifestyle. Another set of stairs connects the second and third floors. On the third floor, one finds the *mtɕʰær-ko* 'altar room', the second spiritual centre of the house. The altar room differs functionally from *we-lməu* on the first floor, since worship there focuses on Buddhist and Bön deities and bodhisattvas, not on the ancestors (see §2.7.1 for the Geshiza religion). The altar room includes religious statues and a possible collection of Tibetan scripture functioning as venerated cult objects, rather than being in actual use in most households. When scripture is recited by monks or *ʑvæl* 'shamans, lay specialists', this takes place in the adjacent *tɔwo* room that cofunctions as storage space when no religious ceremonies are scheduled.

The third floor has more storage space and a simple toilet shed hanging by the side of the house. Due to profuse open space, the rooftop is ideal for working and sunbathing during the cold winters. Harvested crops, such as corn, are dried there.

Simple stairs or a ladder lead onto the fourth floor that contains the *mkʰær-tso,* a small room on the top of the house, the third religious focal point of the building. On top of the *mkʰær-tso*, one finds the *vsaŋkʰaŋ*, place for burning incense. Again, this space serves a distinct

religious function by being the locus of mountain deity worship through the burning of *somtɕæ* 'juniper incense' as an offering to implore protection for one's family and the whole village. The Geshiza place small white quartz stones to an outer wall inset of the *mkʰær-tso* and six larger white stones at the corners of the rooftop. In the region, the Qiang are particularly known for their veneration of the white-stone (Graham 1958: 50 cited in Burnett 2014: 60). The Qiang may have historically influenced the Geshiza in this respect.

Doors act as spaces of transition, providing potential access for outside forces to enter. The Geshiza protect the doorways in many ways to stop malefic forces from entering. The same principles equally apply to village gates (see Figure 2.16 at the end of the chapter). The village gate forms both a physical and spiritual barrier and it is built intentionally low to stop *ɕæɳʤi* 'demons' (see §2.7.2) roaming outside from entering the village. This resembles the widely-spread Tibetan belief that *ro langs* 'risen corpses, zombies' cannot bend their bodies.

As the description shows, traditional Geshiza architecture includes a major religious dimension. Consequently, traditional housing increasingly giving way to Chinese-style architecture has far-reaching future consequences that go far deeper than affecting merely the surface form of houses' architectural layout. Some Geshiza who are acutely aware of the issue are looking for solutions. For instance, people who have moved to apartment buildings in the County Town pay an annual fee to their village relatives to carry out the religious rituals and to look after the village house. Also, altars can be installed to Chinese-style apartments. Yet, amidst the great changes, all such devised solutions are temporary. Asking a Geshiza man what happens if his family moves permanently into a Chinese-built apartment that lacks most religious infrastructure discussed above, his half-joking answer was: 'We will become Chinese.'

2.6.2. Tools and objects

Geshiza lexicon (see chapter 14) reveals two major patterns of technological transfer in the linguistic ecosystem. In the past, new technology was adopted from the technologically more advanced Tibetic speaking Tibetan neighbours. At present, Chinese-made tools and objects are filling the physical space, causing a large shift in material culture. The implications of this process from the viewpoint of cultural conservation and change are discussed in §2.8.2. Modern tools and machines, such as tractors, are replacing domestic animals and a wide range of traditional tools in farming work, yet the work remains human labour intensive. For instance, *qo*, the traditional wooden plough, has fallen into disuse and villagers talk about the object as a memento from the past qualitatively different from 'modernity'.

Anthropological literature on ethnic minorities often idealises traditional practices, conversely demonising modernity and progress generally associated with it (see e.g. Norberg-Hodge 1991 on Ladakh). At the same time, the problems of modernity highlighted in the literature are real, immensely important, and cannot be ignored. While minorities have every right to participate in modern material culture, at the same time, a rapid change in the material culture potentially exposes their environment to irreparable damage.

In their traditional way of living, the Geshiza lived largely self-sustainingly in relative balance with the surrounding nature. The lifestyle meant avoidance of waste and pollution, since little non-composting litter harmful to the environment was produced. The surrounding environment supplied people with most things they needed, and later everything unnecessary returned into the nature. This balance, however, is now endangered by rapid changes in material culture in which traditional tools and objects are replaced with new ones with non-composting or environmentally harmful components, such as plastic and toxic heavy metals. At the same time, the rapid influx of tools and objects produced outside is creating dependencies on global economic networks in the Geshiza communities. Elderly Geshiza are very perceptive on the change that has occurred during their lifetime, expressed by a retired Balanger as follows:

> *(In the past,) there was no plastic at all.* […] *Now everything is (made of) plastic, so people throw (used) plastic away, just like that, right? Cows eat it and become unable to defecate, then dying. If we look inside (the stomach), it is full of plastic!*

In recent times, the regional government has started to put more effort to waste management. In Balang, public trash bins were installed in 2016. Non-composting litter is now collected and carried away from the village by a tractor on a regular basis. Yet, while such measures keep the local environment cleaner, they fail to address the root causes of pollution.

Analysing motivations for consumption provides a useful angle for discussing changes in material culture. An increasing part of consumption among the Geshiza is shifting from need-based into status-based. In addition to their practical value, modern material objects epitomised by large television sets serve a dual symbolical function of both highlighting and gapping difference. On the one hand, the display of symbols of modernity shows that the household clearly contrasts with those with financial difficulties, households who are yet not fully participating in material modernity. On the other hand, the display of status symbols shows that the owners are on par with the materially abundant and successful households often portrayed in Chinese domestic television programs or in rarer foreign movies. The Geshiza themselves are acutely aware of the present material 'arms-race' affecting their communities.

2.6.3. Clothing

The clothing style among Geshiza has been greatly influenced by contact with the Han Chinese. Clothes are generally bought from Han Chinese merchants in Danba County Town that has a wide selection of cloth stores, albeit often at relatively high prices. Geshiza traditional clothing, such as *tɕʰəba*, the Tibetan *phyu pa*, is typical to Eastern Tibetosphere, but is largely relegated into ceremonial function on major events. In general, the clothing of women has been more resilient and stayed more conservative. For instance, *pare*, the square-shaped traditional ladies' headdress, is still in active daily use among the Geshiza, not only on festive occasions, but also in everyday life. For an illustration of a Geshiza traditional clothing, see Figures 2.17 (female)

and 2.18 (male) at the end of the chapter, to be compared with westernised everyday working clothes in Figure 2.13 and with the typical attire of a monk in Figure 2.21.

Geshiza accessories that have religious and in cases decorative functions often accompany modern clothing adopted through interaction with the Han Chinese. Like other Tibetan groups, many Geshiza wear *mpʰriva,* 'prayer beads' that can be used for counting the numbers of mantra recitation, while *ŋkʰærlo* (Tib. *'khor lo*) 'prayer wheel' can also be seen at the hands of many elderly of the communities. Hanging from the belt, the men wear *meloŋ* (Tib. *me long*), a round miniature mirror-like ritual object with the twelve Tibetan Zodiac animals carved on it.

Animal skins and fur-lined clothes, such as *dʑy(w)æ-tɕe* 'fox-fur hat' are still used among the Geshiza, although they mostly remain stored and their use is restricted to special festive occasions. Since 2006, Tibetans in different parts of the Tibetosphere have been burning their valuable furs to show loyalty to the Dalai Lama who wishes to see the use of rare animal skins discontinued among the Tibetans. This campaigning has hitherto not reached the Geshiza.

2.6.4. Cuisine

The Geshiza eat three meals per day, named after their timing: *gædə-dzi* 'breakfast, lit. morning-food'; *mdzo-dzi* 'lunch', lit. 'noon-food'; and *gəɕʰo-dzi* 'dinner', lit. 'evening-food'. The content of the three meals does not fundamentally differ. For instance, rice can be consumed for any meal and the leftovers of one meal may be eaten on the following occasion. The quantity, however, tends to vary. For many, the dinner is both the main meal and an occasion of social interaction after the working day is finished. Like in many East Asian languages, among the Geshiza, the phrase 'Have you eaten?' has evolved into a general greeting (2.1):

(2.1) *dzi* *d-i-ŋgi.*
food PFV-Q-eat.2SG
Have you eaten? (UA)

The Geshiza eat most dishes with chopsticks, spoons being also used. As anywhere else, knowing how to eat 'properly' during a mealtime sets cultural insiders apart from outsiders. The host is expected to urge the participants to eat profusely. In turn, instead of directly following the proposals, the participants, are expected to refuse several times before following the suggestion. The host frequently asks whether the eaters find the food tasty (2.2), to which affirmative responses complementing the taste are expected:

(2.2) *æ-ʑo-ræ*
Q-be.tasty-SENS
Is it (the food) tasty? (UA)

Geshiza cuisine shows both Tibetan and Chinese influence. Recent decades have witnessed an increasing amount of adoption of primarily Sichuanese Chinese culinary practices. For an illustration of a multi-dish festive meal, see Figure 2.19 at the end of the chapter. Rice, noodles and *kʰe*, loosely translated as Geshiza bread that comes in many varieties, form the staple diet of the people. While rice now dominates the cuisine, noodles and bread play a major role as alternative sources of carbon hydrates.

Women make the noodles themselves from flour, especially during festive events. At present, mass-produced *rʤæ-mele*, '*guanmian*' Chinese noodles are also frequently bought from Danba County Town. Due to their cheap price and ease in cooking, they are gradually replacing the hand-made noodles. In contrast to many Tibetan ethnicities, such as the neighbouring Stau, the Geshiza rarely eat tsampa, a pan-Tibetan roasted flour staple food. Many Tibetans see being 'tsampa eaters' a unifying factor that transcends the differences among Tibetan subgroups. For the Geshiza, however, eating tsampa plays no major role in terms of their Tibetan identity.

Only butchered animals and not those found dead are eaten. Traditionally, meat consumption had been limited to special occasions, such as festivities and visits into the household. Improving economic standards, however, has led into increased meat consumption, mainly in terms of pork. The villagers generally eat meat during the winter months when freshly butchered meat is readily available. In summer time, the diet puts more emphasis on vegetables.

Of the varieties of meat, the Geshiza mostly consume pork, a culinary habit shared with the Han Chinese. Yak meat is not eaten in the area, and even normal beef is scarce because of its high price in comparison to pork and chicken. Abstaining from beef is justified with the argument that unlike the pigs, cows work hard as domestic animals and butchering them would thus be *zdupa* 'pitiable'. Owing to the shallowness of the rivers in the Geshiza homeland together with the difficulty of transportation, fish is not frequently eaten, even though it is occasionally on the menu, especially as an ingredient of *huoguo* (火锅), the Chinese hotpot. The fish that is eaten is bought from the County Town, since a cultural taboo forbids catching and killing fishes, yet the taboo does not forbid consuming fish as a part of the diet. Chicken, too, appears as a part of Geshiza cuisine infrequently, e.g. as an ingredient in *huoguo*.

Moderate alcohol consumption is culturally acceptable among the Geshiza. Many males also smoke cigarettes that are shared even with strangers as an act of goodwill. While eating dinner and during festivities, males and occasionally females drink strong Chinese alcoholic drinks, such as *baijiu* (白酒). In addition to Chinese alcohol, alcoholic drinks are produced locally as well. The Geshiza call such beverages *roŋ-vo* 'local alcohol, farmer alcohol'. Also, *mær-tɕʰoŋ* (Tib. *mar chang*), strong alcohol with butter added in, is drunk on festive occasions.

The Geshiza foodways have recently undergone a major change. Formerly, rice was a luxury commodity not readily available for everyday consumption. Not grown locally, imported rice could be purchased from Danba County Town, but few people could afford it because of the high cost. According to a Geshiza man in his mid-thirties, rice became common only when

he was in the third grade of the primary school. Before that, *jime-k^{h}e* 'corn bread' constituted the everyday staple diet. In addition to rice, many new ingredients have been introduced to Geshiza cuisine through interaction with the Han Chinese. The newcomers are easily distinguished by a lack of native Geshiza term: e.g. *p^{h}ut^{h}əu* 'grapes' < Ch. *pútao* (葡萄) 'grapes'.

In addition to its practical and social functions, food has also a sacral function for the Geshiza. Not only is food offered for the ancestors, but also, the Geshiza have a custom of consecrating food by taking it to *skærva* 'pilgrimage, circumambulation' (see §2.7.1. *Pilgrimage*). Upon returning home, this sacred food is redistributed among the family members to be consumed so that they may also benefit from the pilgrimage.

2.7. Intangible culture

In this section, an overview is given on religion and beliefs (§2.7.1); the Geshiza ontology (§2.7.2); appropriate cultural behaviour and taboos (§2.7.3); oral tradition (§2.7.4); and education and transmission of knowledge (§2.7.5). These themes are treated collectively as manifestations of intangible culture, but the term must be taken with caution, since aspects of material culture discussed previously are not limited to a tangible context only. In short, the term intangible culture is used here as a shorthand for cultural manifestations that in general belong to the domain of abstract notions, thus being non-reducible to material culture only.

2.7.1. Religions and beliefs

The Geshiza follow two *tɕ^{h}ue* 'formal, doctrinal religions': Bön and Tibetan Buddhism. Most people are also marginally aware of the existence of Christianity and Islam, but save individual exceptions, the foreign missionary religions have gained few converts in the region. When people meet for the first time, sentence in (2.3) is sometimes asked to determine the religious affiliation of the interlocutor. This is usually done merely only out of curiosity, not affecting the interaction of people in any way:

(2.3) *ɲi* *ætɕ^{h}ə-tɕ^{h}ue* *ŋuən.*
2SG what-religion COP.2
What is your religion? (OU)

Religion is inherited from the parents. More exactly, like *jo-lmə ~ we-lmə* 'house name' (see §2.3.4), individuals' religion is determined by the household where they are born or happen to live, at least in its outwardly manifest forms. Consequently, when a woman moves to the husband's household in patrilocal marriage, she is expected to outwardly adopt the customs of the religion practiced in the household, irrespective of her original religion. If the husband moves to the household of her wife in a matrilocal marriage, he is expected to outwardly follow the religion practiced in that household. These two constitute instances of marital conversion,

at least at the performative level. As a Geshiza man stated, there is no way of telling what an individual really believes despite an outward conversion. Finally, a child adopts the religion practiced in the household through exposure.

Virtually all Geshiza identify themselves as either followers of Bön or Tibetan Buddhism. The formal aspects of these two religious traditions, however, only cover a part of the spectrum of daily cult practice. In addition to practising organised dogmatic religion, the Geshiza follow a mountain deity cult, strive to maintain good relations with *ʂɐʨʰə* spirits, and revere their ancestors. These traditions are frequently called folk religion in Tibetan studies (see Tucci 1980: 163-212). In contrast to Bön and Tibetan Buddhism included under the umbrella term *tɕʰue* (Tib. *chos* 'dharma, religion'), folk religious practises have no general term and the Geshiza often see them belong to the realm of *ɳʤʐolu* (Tib. *'gro lugs* 'customs, way of life') 'way of life'.

Formal traditions and folk religion are not mutually exclusive, but rather exist in a syncretistic relationship in which each practice has its own central domain, the resulting domains overlapping considerably. To simplify, 'this-worldly' folk religion whose practices are frequently carried out by laypeople focuses on interactions on local deities and spirits with pragmatic concerns, such as avoiding supernatural malevolence, contrasting with the 'otherworldly' focus of the formal traditions whose practices are often carried out by specialists, such as monks (Epstein and Peng 1998: 121). Also, the formal traditions have scripture, systematic dogma, and monastic tradition, all of which are lacking from folk religion.

Depending on one's theoretical interpretations, the folk practices can equally be seen as an aspect of the Bön religion, an interpretation that some Bön followers among the Geshiza have adopted. Yet, since Buddhists also practice folk religion, emphasising too strong a connection with Bön would not be accepted by all Geshiza who follow Tibetan Buddhism. Consequently, despite overlap and blurred boundaries, the formal traditions and folk religion are best discussed separately in this brief sketch. Against this backdrop, religious practices among the Geshiza can be summarised as in Table 2.8 below. The table is mainly meant to summarise the existing religious traditions among the Geshiza. As can be seen, the illustrated properties strictly follow a division into formal and folk religion.

Table 2.8. Dominant religious practises among the Geshiza

Macro-division	Religious practice	Scripture	Syst. dogma	Monastic tradition
formal tradition	Tibetan Buddhism	✓	✓	✓
	Bön	✓	✓	✓
folk religion	mountain deity cult	✗	✗	✗
	ʂɐʨʰə spirit cult	✗	✗	✗
	ancestor cult	✗	✗	✗

Religion and physical space

Geshiza landscape is marked by the presence of religion. Of these, some of the most noticeable features are the *mtɕʰærten* (Tib. *mchod rten*) 'stupa' of both Bön and Tibetan Buddhism. Stupas are constructed at the edges of villages and frequently circumambulated by the Geshiza (see Figure 2.20 at the end of the chapter for a Tibetan Buddhist stupa). Circumambulation of religious structures constitutes an important religious practice for both Tibetan Buddhists and *bəmbə* (Tib. *bon po*), followers of the Bön religion. In contrast to the Buddhists who circumambulate clockwise, the *bəmbə* perform their circumambulations counter-clockwise. The devout must take at least three full rounds around a stupa, but there is no upper limit, and some perform even hundreds of circumambulations. Also, *rlonrta* (Tib. *rlung rta*, lit. 'wind horse') 'Tibetan prayer flags' can be seen everywhere. In addition to the typical small prayer flags, each Geshiza household also has a tall prayer flag pole outside the house. The prayer flags contain mantras and are marked in Chinese so that the devout who know no Tibetan can easily purchase the right set; either a Tibetan Buddhist or a Bön version.

Walking through Geshiza lands, one encounters 'mantra stones', namely stones with mantra engravings (see Figure 2.9 at the end of the chapter). The Geshiza landscape is also dotted with *roŋdʑoŋ* (Tib. *rang byung*) spontaneous, self-arisen images, classified as a category of relics in Guidoni (2010). Among the Geshiza, such patterns are commonly perceived on rock-faces, and thus mark religious space. For instance, *a roŋdʑoŋ*, 'self-arisen *a*' in reference to the Tibetan letter *a* (ཨ) are seen on rock-faces, being powerful places of religious significance. The Geshiza attach high sacred value to such patterns considered to exhibit spontaneous self-generation, marking the loci with prayer flags and showing reverence to them when visiting or passing by.

Bön

Bön is a 'traditional' Tibetan religion whose exact historical origins and age vis-à-vis Tibetan Buddhism proper have come under debate. The roots of Bön go undeniably back to pre-Buddhist times, but many questions remain to be answered concerning the nature of that religion. Some historical research, e.g. van Schaik (2011: 99-100), argue for Bön in the form we know it to have arisen in tandem with the revival of Buddhism in Tibet in the eleventh century. In recent times, together with the emerging of movements emphasising pan-Tibetan unity and identity, Bön is often reinterpreted as a sect of Tibetan Buddhism. According to the traditional accounts, *gshen rab mi bo*, the founder of Bön, brought the religion to the ancient kingdom of *zhang zhung*. Subsequently, the religion expanded further in Tibet and received influence from Tibetan Buddhism, gradually evolving into its current syncretistic form.

The Gyalrong lands have historically been a stronghold of Bön where local chiefs provided patronage for Bön monasteries (Kværne 1995: 22). Fitting into this regional patter, Bön has a strong presence among in Geshiza Valley and also more broadly in the surrounding areas. The Bön sect among the Geshiza is called *g.yung drung bon*, literally 'Eternal Bön, Bön

of the sauwastika'. Sauwastika, 'left-facing' swastika symbol used as the emblem of the sect, can be seen widely as a motive of decoration among the Geshiza. The Geshiza name *joŋdʐoŋ* originating from the Tibetan *g.yung drung* 'sauwastika, unchanging, eternal' is also very popular. At home, Bön cult practice takes place in *mtɕʰær-ko* 'altar room' where the Geshiza light butter lamps at least in the evening every day. Some families also light an additional butter lamp in the morning. The lighting may be accompanied by ritual drumming, but this is now practiced only by a minority, at least in Balang Village. The main *g.yung drung bon* monastic centre in eastern Geshiza Valley is called *bjærdærlo rgəmba* (Ch. 安多雍忠德青岭寺; Tib. *lna stag y.gung drung bde chen gling*; see Figure 2.21 at the end of the chapter).

Bön includes a strong dimension of shamanism. Geshiza shamanistic Bön that can also be classified as a transition zone between formal and folk religion is the domain of *ʐvæl* 'shaman, lay practitioner' whose primary task consists of performing *ʐto* (Tib. *gto*) 'ritual of reciting religious scripture accompanied by rhythmic drumming'. The ritual is frequent and performed on various occasions, which makes it one of the core cultural practices among the Geshiza. For example, in a case of cow theft, an *ʐvæl* may be hired to find out the culprits responsible for the theft. Due to its ubiquitous role, people even joke about *ʐto*. For one, during a phone conversation, once a consultant noticed that the author had caught cold, he jocularly asked whether I had already ordered *ʐto* to be performed for healing. In contrast to monks, the *ʐvæl* who are lay practitioners are allowed to marry and they generally lead normal family lives overlapping with their religious role in the community. Being able to recite scripture, however, requires at least knowing the Tibetan script. For this reason, monks and *ʐvæl* are among the few who have knowledge of Written Tibetan and the Tibetan alphabet among the Geshiza.

ʐvæl is also a Geshiza house-name (see §2.3.4), giving hints on the hereditary role of *ʐvæl*. A position similar to *ʐvæl* exists outside the Geshiza community. In written Tibetan, religious practitioners with a similar role are called *sgom pa* and their position was often hereditary transmitted from father to a son (G.yu 'brug and Stuart 2012: 9; Xu 2002: 54). Nevertheless, while possession-trance and spirit mediumship have been reported to take place in Tibetan shamanism (see e.g. Peters 2016: 6), the author has not witnessed such behaviour among Geshiza shamans who to an observer maintain their everyday consciousness during religious rituals. For this reason, *ʐvæl* can also be translated merely as 'lay practitioner who serves the community'.

Tibetan Buddhism

Even though Bön is the predominant religion in many parts of Geshiza Valley, including Balang Village, Tibetan Buddhism greatly influences peoples' lives. At the same time, since Tibetan Buddhist practices are under Bön influence, religious life in the Valley is syncretistic. To illustrate, even though *mæne-xui* 'Mani Recital Meeting' (see §2.4.1) is performed by Tibetan Buddhist monks, villages with a *bəmbə* majority also organise it. The central belief of *stɕewa* 'reincarnation' is also shared by the Geshiza regardless of their religious identification.

While Balang is a *bəmbə* village, the neighbouring Buke Village is also inhabited by followers of 'Yellow-Hat Buddhism' (Ge. *rgelupa*; Tib. *dge lugs pa*). Buke has a major monastery called *ʈʂaɕʰi-rintɕʰin-ɻalan* (Ch. 扎西仁青岭寺; Tib. *bkra shis rin chen gling*; see Figure 2.22 at the end of the chapter). The establishment of this monastery in 1730 (official date from the monastery's information board) has led to the conversions, especially in the surrounding communities. This is epitomised by Buke Village where many villagers now follow the Yellow Hat school. In general, Bön predates Tibetan Buddhism introduced later into the Geshiza lands. The Buke monastery also exerts influence on the life of surrounding Bön villages without conversion having taken place. The monks provide ritual services for the surrounding communities. In a complementary way, Balang laypeople help in supporting the monastic community by money gifts and voluntary labour, for instance.

Both in Bön and Tibetan Buddhism, the everyday religious life focuses on the cult of the various divinities and bodhisattvas represented in the form of *skə* (Tib. *sku*) '*kāya*, image of a buddha.' Benevolent divinities are also called *ɕʰa* (Tib. *lha*) 'gods (of heaven)'. Also, reincarnated masters of lineages (Ge. *skəʑɔ*; corresponds to the Tib. *sprul sku,* but borrowed from a different Tibetan source*)* are highly revered, to the extent that when a monastery has one, its prestige increases markedly.

Pilgrimage

Bön, Tibetan Buddhism, and the mountain deity cult discussed below are connected through an important ritual, *skærva* 'circumambulation, pilgrimage' (see Figure 2.23 at the end of the chapter). Typically, *skærva* involves a trip to a religiously important location, such as a holy mountain, a monastery, or a stupa, that is circumambulated, i.e. ritually walked around for gaining religious merit. Pilgrimage and modern tourism differ in their genealogy and motivation, yet similarities exist between the two (Zuelow 2016: 7-9). While pilgrimages are inarguably a religious cult practice, they are also used by the Geshiza as religious holidays that offer a chance to spend time with one's family and friends while visiting new places, thus illustrating their evolved, secondary touristic function. Xu (2002: 53) reports similar findings from the nearby Suopo Township where the young continue to participate in pilgrimages, albeit as a means of entertainment. In general, the Geshiza show deep fondness for the practice of *skærva.*

Attracting pilgrims is important in the Tibetosphere since pilgrims support the visited religious communities with funds. According to a Geshiza man who was invited for pilgrimage, some monasteries further away from Geshiza Valley have recently started mailing letters of invitation to attract more visitors. Among other things, an increased influx of visitors would mean more funds for maintaining the religious sites.

Mountain deity cult

The cult of mountain deities also exists in the Geshiza Valley surrounded by imposing mountains, both at the regional and local levels. Mt. *dmu rdo* serves as the most important holy

mountain of the region, resulting in many pilgrimage visits by the devout from Geshiza Valley and many further places. At the local level, each village generally has its own *rirəu* 'holy mountain, mountain deity' that is subject to worship. Exceptions to this general rule exist: for instance, Balang and Xishua Villages share the same holy mountain, as well as Buke and Jiniu (*dzæɲo*; Ch. 吉牛) Villages. As mentioned in the context of house architecture (see §2.6.1), the Geshiza burn juniper on the rooftops to invoke protection from their mountain deity.

Like with other spiritual entities subject to cult practice and discussed in this subsection, the Geshiza reciprocally interact with the mountain deities. On the basis of contractual reciprocity, the Geshiza honour and appease the mountain deities regularly, receiving patronage, protection, and blessing in return (see Studley 2014; 2019 discussing the *dzhi bdag* spirits of Kham). While further research on the topic is required, it is intriguing to think that temporary cessation of the mountain deity cult upon the death of a community member (see 2.7.3. *Taboos*) results as a reaction to the divinity's failure to perform its part in the mutual contractual relationship.

ʑɕʰə spirits

The Geshiza folk religion reveres *ʑɕʰə* (Tib. *klu*), spirits that manifest themselves as frogs and snakes. Due to this reason, killing frogs and snakes is a grave offence. The special role of frogs is an areal feature. For instance, in the Aba prefectural grasslands, Amdo-speaking nomadic herders are afraid of frogs (Marielle Prins, personal communication, May 26 2018). Based on interviews of Amdo speakers, belief in *ʑlə* (Colloquial Amdo)*/klu* (Written Tibetan) spirits that among others manifest themselves as frogs is widely-spread among Amdo Tibetans. The *ʑɕʰə* spirits revered by the Geshiza clearly correspond to the Tibetan *klu*, which in turn correspond to Sanskrit *nāga.* The *nāga* are generally thought to have influenced beliefs concerning *klu* in the Tibetosphere. It is likely that these powers of earth and water predate the *nāga* and were at an early stage associated with them. Among others, this view is held by Samuel (1993: 162).

The *klu* are powers of earth and water on which agricultural prosperity depends (Tucci 1988: 222). The Geshiza think that *ʑɕʰə* may bring both fortune and misfortune, depending how they are treated and whether they are pacified through the *zəva* ritual performed by the women of a household every morning in the warm season. The space of the family house and its immediate surrounding are blessed by sprinkling water while simultaneously chanting '*o zəva, o zəva*', except after calamities, such as deaths in the village, which result in a temporary suspension of the ritual (see §2.7.3. *Taboos* where a connection of the ritual also with the mountain deity cult is discussed). Also, since the *ʑɕʰə* are thought to be sleeping during the winter, the ritual is suspended approximately after the *tsong kha pa* Memorial (see §2.4.1) until spring comes and the nature starts to flourish. It should be noted that in the *zəva* ritual, an association of the *ʑɕʰə* with water is manifest. A young Geshiza male who refers to the spirits as snakes based on their common avatar well illustrates the Geshiza feelings towards the serpentine spirits:

In everyone's house, there is one snake. Sometimes we see them, and sometimes we don't. If you take it easy with snakes and say 'o zəva, o zəva', they will yield and go aside. If you carry a stick and hit the snake, it will punish you. The snake will punish you, or it will bite.

The wrath of *ʑɕʰə* results in sickness, a state which is called *kʰævqʰi*. Since the *ʑɕʰə* are powers of earth and water, an improperly executed construction project may disrupt them and consequently lead into *kʰævqʰi*. A mistake might have been made in choosing an improper construction site or improper timing. The Geshiza say that sicknesses resulting from *kʰævqʰi* cannot be cured through conventional medical means. Therefore, placating the *ʑɕʰə* offers the only way for cure and return to normalcy. Typically, this is done through the *ʑato* and *zəva* rituals discussed earlier in this section. In all, due to potential harm resulting from improper dealings with the *ʑɕʰə*, the Geshiza pay great heed to maintaining a good relationship with the spirits.

Other divinities of folk religion

In addition to divinities of folk religion discussed above, contemporary Geshiza culture contains vestiges that hint of wider cult practice in the past. In such cases, while the form is still largely preserved and followed by the lay population, deeper awareness of the practice's meanings and origins has become vague, save among religious specialists. Two such examples are examined herein.

First, the Geshiza believe in *ʑnæn* (Tib. *gnyan* 'type of spirit') that take two forms: *ʑnæn-sʰi* '*gnyan* tree' and *ʑnæn-rgævæ* '*gnyan* stone'. Tibetan folk religion contains a wide range of *gnyan* beings, including tree and stone dwellers (Nebesky-Wojkowitz 1975: 289). These beings are now being forgotten in the Tibetosphere (see Kocurek 2013: for a credible argument concerning a connection with deforestation).

ʑnæn-sʰi are old holy trees, e.g. by a natural spring, that are never felled and appear frequently adorned with attached prayer flags. Even if a storm causes a holy tree to fall, it cannot be used for firewood, lest the residing *ʑnæn* spirit takes revenge in the form of causing sickness. The Geshiza report in most cases simply 'knowing' which tree qualifies for *ʑnæn-sʰi*. The same cannot be said of *ʑnæn-rgævæ* '*gnyan* stones'. When a family starts to build a new house, they may unintentionally extract stones from a place where a *gnyan* resides, causing sickness. Felling an *ʑnæn-sʰi* would potentially also cause sickness, but since people consciously avoid harming them, this rarely happens. The *zəva* ritual provides cure for supernatural sickness caused by an angered *ʑnæn*.

Second, due to the central role of agriculture, the Geshiza pantheon also includes *ʑəvdɔ* (Tib. *gzhi bdag* 'local deity, lord of the soil') 'local deity, lord of the fields, protective deity of places and the earth'. These are likely conceptually connected with *sʰævdɔ* (Tib. sa *bdag*) 'earth-owner spirits' and *rirəu* 'holy mountains.' The cult of *ʑəvdɔ* takes place at *vtsækær*, a white stone installed in the middle of a field, guaranteeing that the field prospers. Before

commencing the seasonal cultivations, the Geshiza organise a ceremony at the *vtsækær* that includes burning juniper incense and floral decorations. In addition, as discussed in §2.4.1, every spring the Geshiza conduct *sʰævdɔ*, a series of ritual sacrifices from the rooftops to the earth-owner spirits to guarantee a bountiful harvest.

Ancestors

In Geshiza folk religion, a person becomes an ancestor after death. The ancestors are subject to a cult practice in the *we-lməu* room (see §2.6.1) where they live as spirits invisible to the human eye. Before eating, it is customary to give part of the day's food and drink to the family's ancestors as *dzi-ɕʰe* 'food offering'. It is unacceptable to use leftovers from previous meals for such an offering. The Geshiza nevertheless often omit the offerings in everyday life when no events take place. Some households place the offering twice in a day in the morning and the evening, while others place a third additional offering before lunch. As an alternative to food, butter lamps are also given as offerings to the ancestors.

Like the *a̱ɕʰə* spirits, the dead can also cause trouble for the living. One form is *næpa* (possibly from Tib. *gnod pa* 'harm), grudge borne by a dead person towards a living. *næpa* commonly manifests itself as a sickness in the individual a dead person bears grudge to. The folk stories also tell of cases in which the dead take revenge on the living by haunting. In addition, the Geshiza know transmission of sickness from the deceased into the living. When a person gets the same symptoms as a dead person with a certain sickness, *a̱den* is said to have taken place. The transmission of sickness may take place following death or even years after the death of a person. A *rtsipa* (Tib. *rtsis pa* 'diviner, soothsayer, astrologer'), diviner, is consulted to confirm whether a case of sickness is merely of ordinary kind or due to *a̱den*. Both *a̱den* and *næpa* are removed through an *a̱to* ritual. To summarise, the potential risk from the dead gives an incentive for the Geshiza pay attention to keeping their ancestors satisfied through sacrifices and other ritual activities.

2.7.2. Geshiza ontology

This section discusses Geshiza ontology in terms of its basic categories of existence. The ontological view of the Geshiza has been heavily influenced by Tibetan Buddhist and Bön and ideas. Most laypeople nevertheless lack knowledge of theoretical Buddhist and Bön doctrine studied at monasteries. Against this backdrop, the present subsection aims to illustrate how an ordinary Geshiza perceives the visible and non-visible entities of the surrounding world. A binary-branching model has been adopted for this goal, shown in Figure 2.3 on the following page. This model should nevertheless be seen only as a representational tool for the ease of analysis, not as a framework consciously used by the Geshiza themselves. The ontological divisions discussed here bear linguistic significance, since they are interlinked to the grammatical system of the language. Perhaps most notably, the selection of an appropriate existential verb (see §7.6) depends on the referent's place among the categories of existence.

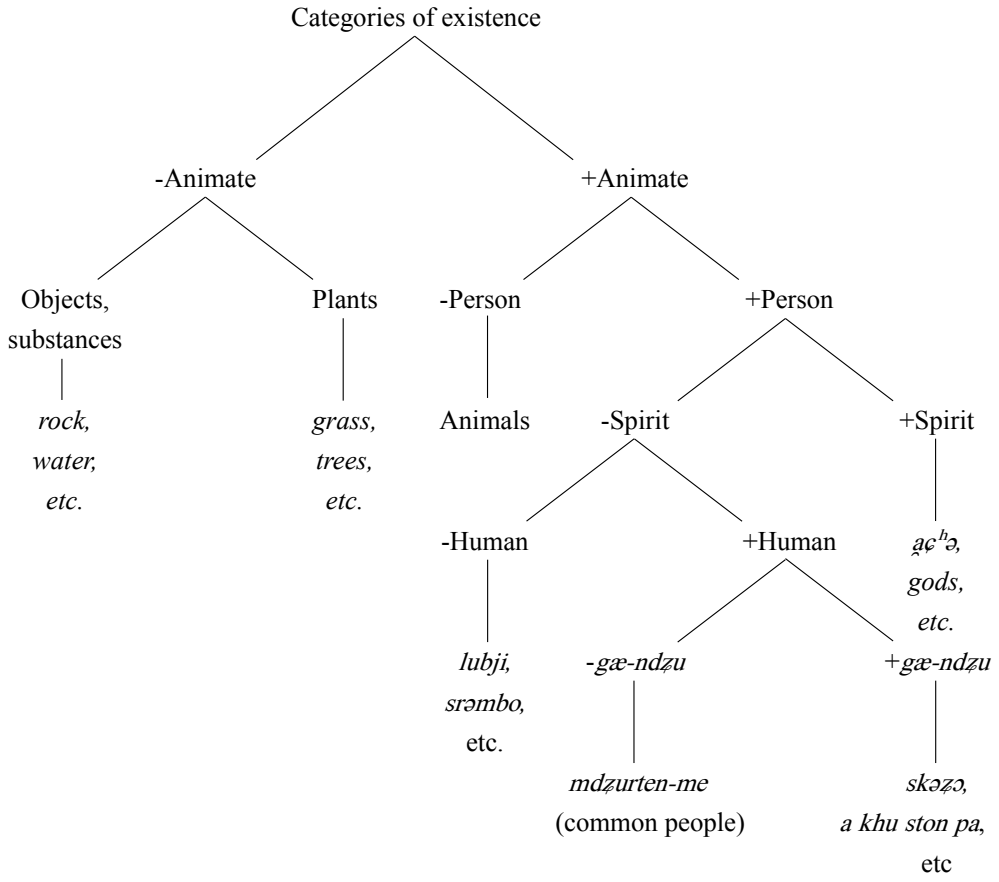


Figure 2.3. Basic categories of existence among the Geshiza

Finally, the previous subsection illustrated spiritual powers subject to cult practice, such as mountain deities. In contrast, the rest of the non-human and spiritual beings of Geshiza ontology without cult practise discussed herein are summarised in Table 2.9 below:

Table 2.9. Non-human beings in Geshiza ontology without cult practice

Type	Gloss	Interaction	Realm of existence
vdə	anthropophagous ogre	harmful	physical, past
srəmbo	anthropophagous ogress	harmful	physical, past
moɳɖʐi	female monster, female demon	harmful	physical, past
lubji	mountain monster, yeti	harmful	physical, mostly past
ruloŋ	*vetāla*, Tibetan-style zombie	harmful	physical, mostly past
brɔsən	spirit moving on the mountains	neutral	visible as light, present
ɕʰæɳɖʐi	demon, evil spirit	harmful	invisible, present
(z)gosrun	door guardian deity	protective	invisible, present

Animacy

At the most fundamental level, most, if not all human groups divide the world into living and non-living things, yet the borderlines of such categories differ cross-ethnically. Such division also commonly has linguistic repercussions. Among the Geshiza, the first major division of the entities of the world concerns animacy, also largely rephrasable as sentience in the cultural context. Sentient beings are classified as animate and non-sentient as inanimate. The inanimate realm further branches into objects and substances (e.g *rgævæ* 'rock'; *wrə* 'water'; *zgre* 'star') and plants (e.g. *rura* 'grass'), the two of which require different existential verbs, a linguistic fact illustrating their distinctness (see §7.6). Entities of the inanimate realm are sometimes inhabited by spiritual beings, such as *ɲnæn*-spirits found in rocks and trees (see §2.7.1. *Other divinities of folk religion*), yet they themselves lack life-force, with the result that they can neither be born (*stɕe* 'to be born') nor die (*s^{h}æ* 'to die'), processes that only take place among non-immortal sentient beings. For instance, the verbs *ʂnele* 'to wither' and *spo* 'to dry' must be used for flora. Also, while relatively rare, cases where Geshiza ethnotaxonomy does not match Western biological taxonomies exist: e.g. *bjərə-p^{h}o*, literally 'coral-plant'.

Personhood

Sentient beings in the animate realm are conscious and share a distinct animate existential verb (see §7.6). First major division splits the realm into non-persons and persons, non-aware and aware beings, respectively. Of the former, animals are ignorant and controlled by their instincts, so that they may be exploited by humans for labour, for instance. On the other hand, beings of higher awareness have higher understanding and agency operate in the world. Pantheism being absent in the Geshiza worldview, all animate ontological entities except animals qualify for varying degrees of personhood, be they people, divinities, or monstrous mythical beings.

Spirits and non-spirits

Beings of higher awareness exist in two categories: spirits and non-spirits. Tibetans divide the spiritual beings of the Tibetan world into three horizontal spheres: underground, surface, and sky (Kocurek 2013:20; Stein 1972: 203-204). Such layered categorisation of invisible beings is unknown to Geshiza laypeople, and cannot thus be considered an integral part of their worldview. The spiritual powers present in the world mostly stay invisible to the human eye. While their interaction with people is either protective or harmful, beings with hostile intentions are in the majority. In contrast to spiritual beings that have been partly tamed and 'domesticated' for the benefit of the society and to guarantee a mutually beneficial coexistence, the powers discussed in this chapter embody untamed and wild energy that cannot be domesticated through religious cult practice and thus remains a threat to the communities.

In addition to divinities discussed in §7.2.1, Geshiza world includes protective and malefic spirits without cult practice, such as *(z)gosrun* (Tib. *sgo srung*) 'guardians of the door'

and *ɕʰæɳʤi* ‘demons, evil spirits’ (Tib. *lha 'dre* ‘gods and demons’). Both protective and malefic powers typically exist in the invisible sphere, even though they occasionally manifest themselves in the physical world. Sounds attributed to *ɕʰæɳʤi* may occasionally be heard at night, and *brɔsən*, a spirit that moves on the mountain slopes at night, manifests itself in the form of emitted light.

In contrast to creatures with physical form that have largely become mythological for the Geshiza and are discussed below, the invisible forces independent from folk stories remain more real and are often genuinely feared, especially at night-time, since the night constitutes the sphere of activity for the malefic powers. The word *ɕʰæɳʤi* ‘demon’ is often pronounced in half-whisper with an inspective look around, if the context is not meant to be openly jocular. This manifests a universal tendency in human societies towards avoidance of naming the evil, lest it appears.

The Geshiza strive to ward away the malefic powers intending to enter the realms of their everyday life. For instance, wooden knives are hung at the entrance of a building to stop malefic powers from entering. Accompanying carved dragon heads also guard the entrance of a house. Also, village gates (see Figure 2.16 at the end of the chapter) are intentionally designed low so that demons unable to bend their bodies cannot enter, a pan-Tibetan custom.

Humans-and non-humans

Non-spirit entities of the Geshiza world are either non-human or human. The former category comprises visible and tangible non-human beings inhabiting the physical world. Traditionally the Geshiza saw themselves as sharing the physical space with malicious, ugly-looking and morphologically anomalous beings including features of both humans and animals. These are commonly called monsters, known in the literature for their ontological liminality, namely a hybrid nature and their ‘refusal to participate in the classificatory “order of things”’ (Cohen 1996: 6). The existence of ferocious monsters at the margins of classification threatens the society not only through physical violence, but also due to challenging the ontological categories people use. As stated by Gilmore (2003: 19):

> Abnormal and anomalous, the monsters of the mind violate the established taxa people use for basic understanding of nature. Ontologically intermediary, neither fish nor fowl they do not fit into the mental scheme people rely on to explain the world. Being thus inexplicable, monsters are not only physically but cognitively threatening: they undermine basic understandings.

The range of prominent monstrous beings among the Geshiza includes *lubji* ‘mountain monsters, wild-people, yetis’; *vdə* (Tib. *bdud*) ‘anthropophagous ogres’; *srəmbo* ‘anthropophagous ogresses with fangs and sagging breasts’ (cf. Tib. *srin po* ‘male ogre’, *srin mo* ‘ogress’); *moɳʤi* (Tib. *mo 'dre* ‘female ghosts, female daemons’); and *ruloŋ* (Tib. *ro langs*) ‘Tibetan-style zombies’. Many of these creatures are associated with a folk story piece in which

a hero vanquishes an evil power who has come to threaten the everyday order of the society, a universal theme. For instance, a *lubji* is outsmarted and destroyed by a clever hunter, while the culture hero *æmɲi skældoŋ* liberated Geshiza Valley from the yoke of a *srəmbo* with insatiable appetite for human flesh, thus restoring both physical and ontological normalcy.

Belief in the malicious monsters has weakened. Moreover, their existence is strongly connected to a mythical time in the past that fundamentally differs from the present. In the words of a retired Geshiza man: 'Even though ogres and ogresses don't exist anymore, they likely existed in the past.' Interrupted intergenerational transmission of the traditional stories and anecdotes (see §2.7.4) will affect the shared knowledge concerning this set of beings.

Human classification: gæ-ndʑu *and non-*gæ-ndʑu

The class of humans is divided into *gæ-ndʑu* and non-*gæ-ndʑu*. Occasionally, certain people are perceived to hold great spiritual power that sets them apart from commoners and closer to the realm of divinities. Such people, legendary Gesar, Princess Wencheng, and *skəʑɔ* 'reincarnated masters' for instance, are referred to as *gæ-ndʑu* 'extraordinary', a category of mortals. The *gæ-ndʑu*, literally 'extraordinary (in a religious sense)' are biologically human beings and thus mortal, yet religiously distinct from ordinary people. Due to their powers, the *gæ-ndʑu* are seen as capable of performing miracles. Folk stories and local histories of relatively recent events about the miraculous deeds of the *gæ-ndʑu* are known to the Geshiza. For instance, *zæmkær*, a local reincarnated master born in Mosika region, was widely known for his miracles.

The second main category of humans is termed *mdʑurten-me* 'common people' (see *Appendix II: Culture-specific lexicon* for the Tibetan origin and exceptional Geshiza suffixation of the term). By default, all non-*gæ-ndʑu* humans, be they chieftains or ordinary farmers, fall into this category.

2.7.3. Appropriate cultural behaviour and taboos

Since Ruth Benedict's *The Chrysanthemum and the Sword: Patterns of Japanese Culture*, anthropologists have widely discussed 'shame' and 'guilt' cultures around the world. Geshiza culture revolves around shame, rather than guilt, as the focal mechanism for maintaining social control. A central value in the culture is the avoidance of *məka* 'shame'. Shame is best avoided by behaving in a culturally appropriate way and by following the shared principles of societal behaviour. Many such central cultural norms make up the Geshiza *ɳdʑolu* 'way of life'.

Reciprocity

Despite the integration of Geshiza into modern monetary economy in which the distribution of goods and services takes increasingly place as market exchange, reciprocity remains important among the Geshiza, to the extent that it is culturally expected from the community members. Reciprocity typically operates at the level of household units. Sahlin (1972: 191-196) distinguishes three main typological patterns of reciprocity by defining them as the extremes

and the mid-point of a continuum: generalised, balanced, and negative. Generalised reciprocity is putatively altruistic and may be one-sided with no reciprocation. Balanced reciprocity is defined as direct exchange, in its precise form the reciprocation being the customary equivalent of the thing received with no delay. Negative reciprocity is the attempt to get something for nothing with impunity, such as theft as an extreme example. In Sahlin's typology of reciprocity, Geshiza chiefly exhibits the pattern of balanced reciprocity in which the family units give and receive commensurately. Differing from prototypical balanced reciprocity, however, the accounts need not be immediately balanced, an original transaction and the resulting return transaction being possibly separated by years or even decades, rather than by days or months.

Means of Geshiza reciprocity can be divided into two subtypes: goods and services. First, the Geshiza society has clear-cut unwritten rules for gifts given in different situations, for instance, upon wedding or a funeral. Many such gifts are exchanged as agricultural produce, such as pieces pork. The receiving household writes down in Chinese the nature and volume of the gift from each contributor in *ɣəju* 'account book' to make it possible to reciprocate equally when the turns reverse. Second, household units are expected to help other households engaging in labour-intensive projects, typified by building or rebuilding a house. The labourers receive no salary for their work. Since helping full-time effectively impedes taking part in other earning income activities, usually only some household members go to help a relative or a fellow villager at a time. Failure to comply with the unwritten societal rule would result in no help forthcoming when one's own household unit engages in a labour-intensive project for which external work force is needed. Therefore, even though participation in reciprocal activities is theoretically voluntary, pragmatic factors make it *de facto* obligatory for sustained harmonious existence in the community.

Taboos

Many inherited traditional taboos and cultural scripts still control the everyday life in Geshiza Valley. As it is common also among other cultures, people generally lack knowledge about reasons behind a certain course of action that is required in a certain situation. The traditional rules, customs, and cultural practices are known as *ŋʤʐolu*. They are inherited from the ancestors and are thus expected to be followed.

Many Geshiza taboos pertain to death. If a person from a village dies, the villagers avoid going to the rooftop for three days. Visiting the rooftop against the taboo is thought to cause sickness and death in one's family. Religious cult action, too, ceases after a death. The length of cessation depends on the relative closeness of the deceased person. When a family member dies, pilgrimage and circumambulation are stopped for a lengthy period that can last even up to three years. Also, as discussed in §2.7.1, the cult of the mountain deities is related to the *zəva* ritual performed by women in summer time for the *ʑɕʰə* spirits. According to a Geshiza male, if a person from an area governed by a mountain deity dies, the ritual must be stopped for half a month in the area. Deaths in the villages with different holy mountains, i.e. in areas governed

by different mountain deities, do not affect the performance of the *zəva* ritual.

A cultural taboo prohibits giving snails for pigs to eat. Tradition states that eating a snail causes death for pigs. Consequently, when cutting fodder for pigs, snails are removed and released back to the nature. This behaviour may historically derive from Buddhist teachings emphasising compassion and preservation of life. When removing a snail from the pig fodder, the person gains merit by saving the animal from being accidentally eaten by pigs amidst the fodder. The explanation of snails' toxicity thus constitutes a later addition to make the cultural practice whose origins have become dimmed.

2.7.4. Oral tradition

This subsection discusses Geshiza oral traditions by focusing on traditional folktales and songs. An analysis of Geshiza speech genres can be found in §15.1. Among others, folktales and songs can be seen as verbal artforms under the broad concept 'orature'. Originating from the African context, Ugandan linguist Pio Zirimu coined the term in the 1960s (Mwangi 2009: 265). It was made famous by the Kenyan novelist-playwright Ngũgĩ wa Thiong'o (see e.g. the essay *Oral Power and Europhone Glory* in Ngũgĩ wa Thiong'o 1998). The term is preferred here over the self-contradictory 'oral literature', yet another term that displays the strong bias towards the written word and against 'inferior' oral traditions. For the purposes of this chapter, orature is defined as oral artforms, such as folktales, transmitted and made come alive in a given community through spoken words, rather than being based on writing.

The discussion herein builds on Honkasalo (2017) on the Stau people, a related ethnic group in the adjacent Daofu County. Similar to the case of the Stau, folktales and songs occupied a major place in traditional Geshiza culture. A shared feature among the two ethnic groups is that both have been heavily influenced by an extensive interaction with the Tibetic language speaking Tibetans in their orature. Among other things, as a result, Geshiza has evolved a Tibetan-based folklore register (see §14.4.2) in its lexicon. Some Geshiza stories of Tibetan origin retain elements clearly traceable to Indian Vetāla Tales (Sanskrit: *vetālapañcaviṃśati*), which would make them an interesting research topic in investigating highly local adoption of Vetāla Tales in the Tibetosphere. In addition to Tibetan sources, Geshiza orature also draws from the surrounding Gyalrongwa groups.

Like among most oral cultures, Geshiza orature comprises the following essential dimensions: it is oral, intergenerational, and has a societal context. Due to its oral nature, it must be retained by frequent repetition, through which it passes to new generations who first gain a passive knowledge, ultimately gaining confidence to repeat the performances themselves. Also, the performance occurs in a societal context. It follows that orature can only remain vigorous and alive under these circumstances. A recording of oral tradition may be used to revitalise oral traditions in a community; yet if the recording by a linguist has become the only remaining example of an orature form, such as a folktale, despite its potential value in cultural revitalisation, the oral artform in question is in practical terms already dead.

Geshiza lacks a written form. Unlike among Gyalrong speakers where an adapted version of the Tibetan script has been used (Prins 2016: 5), no records of past writing in Geshiza have been discovered. The Geshiza, however, possess a rich culture of orature, especially in terms of folktales. As it is often the case in ownership cases of intangible culture, it is challenging to differentiate between a Geshiza folktale and a folktale told in Geshiza. Rather than attempting to offer a definite answer to the question when a borrowed folktale becomes one's own, Geshiza folktales are defined here from a simple distributional viewpoint as folktales the knowledge of which is widely spread among the remaining storytellers and the audience, irrespective of the origin of such stories.

Perhaps counterintuitively, the European context shows that the written word, rather than oral narration, has played a major role in dissemination of folktales. Including radio and television as corresponding non-oral dissemination channels, this is possible among the Geshiza as well. In other words, not all folk stories that I collected among the Geshiza can be necessarily traced to an intergenerational continuum of oral forms, but at least a part may have been acquired through radio and television broadcasts of Tibetan folklore. Issues related to this are also discussed under *Standardisation of folklore* below.

Major story types

Stories of the Tibetan trickster folk hero *ækə-stæmba* (Tib. *a khu ston pa*) are also widely known in Geshiza Valley. More than 200 different varieties of *a khu ston pa* stories are reported to exist in Tibetan (Yuan, Kunga and Li (2015), but the actual number of the stories in their varying forms likely exceeds this estimation. Rinjing (1997) offers an illustrative selection of Tibetan *a khu ston pa* stories translated into English, many of which follow the same narrative pattern as *ækə-stæmba* stories among the Geshiza. In addition, *pʰo gesar* (Tib. *ge sar*), a version of the Epic of King Gesar is also known among some elderly Geshiza, albeit being performed far less frequently than the stories of *a khu ston pa*. The Epic of Gesar attested in myriad forms in the Tibetosphere, see e.g. Jacques (2010) for a version collected among the Japhug speakers. The epic has been borrowed into even further regions outside the Tibetosphere. Finally, the Geshiza story of *æmɲi skældoŋ* has been borrowed from a corresponding Gyalrongwa story of a messianic figure documented by Prins (2016: 576-616; see also G.yung 'brug and Rin chen rdo rje 2010: 75 for striking similarities with between the legends of *æmɲi skældoŋ* and the holy mountain *mu rdo*).

Electrification and storytelling

In the past, the Geshiza told stories in the evening before going to sleep and on special occasions, such as after slaughtering pigs in winter. At present, the stories are being increasingly forgotten, an affair the Geshiza themselves are aware of and lament frequently. The loss of Geshiza stories is analysable from the viewpoint of the three essential dimensions of Geshiza orature introduced above. In simple terms, *societal contexts* of narration are disappearing, which leads into less

repetitions of the stories, which in turn stops the *intergenerational transmission* and causes storytellers to forget parts of their erstwhile extensive repertoire of stories, leading into the genre's demise as a living *oral* artform.

Diffusion of modern information technology, mainly television, mobile phones, and the Internet, affects traditional oral culture globally. For instance, focusing on traditional oral culture of the Maldives, Romero-Frias (2012: xxiii) argues that the new electronic entertainment plays a major part in the demise of traditional oral culture. Among the Geshiza, while greatly helping people to improve their standard of living, electrification followed by the spread of television and mobile phones has been disastrous for the continuity of traditional oral culture, encapsulated in the words of a retired Geshiza male:

> *In the past, there was no electricity. When there was no electricity, we bought kerosene and made kerosene lamps that we then lighted. We went to the mountains to cut fatwood and then we alighted it. We all sat together and when having dinner, we either lighted a fire, fatwood, or kerosene lamps. It wasn't easy to buy candles or kerosene (since they were expensive). We lighted fatwood, sat like that, and talked. People also told a little bit stories. Old men and women talked a bit about life in the past. It used to be like this before. Afterwards, namely after electricity came, we have everything now. First there was the tape recorder and after that, televisions appeared. Now one family has not only one television set, but three or four of them to watch. (Besides watching television,) we do not do anything (else) in the evening; we do not talk (to each other) either. There are no people telling stories, singing dance songs, or learning songs. Now we all watch television only. After electricity, it is like this.*

Television soap operas that portray a global and/or Chinese modernity together with mobile phone games and social media applications, such as Weixin/WeChat supplying a continuous stream of audio-visual stimuli, have removed the societal context for communal storytelling. Libu et al. (2013) describe the irrevocable change caused by the arrival of electricity among Namunyi (Namuzi) Tibetans in Sichuan which resulted in changing evening from a communal time shared with others into silent television watching. Similarly, the Geshiza now prefer the electric entertainment over the traditional oral artforms. Libu et al. further demonstrate how the elders functioned as authority figures as well as providers of entertainment in the past, a status that has weakened as a result with the introduction of electric entertainment. Similar changes in interpersonal relations are currently taking place among the Geshiza.

Standardisation of folklore

Electrification influences Geshiza folklore via another means, namely standardisation. As illustrated above, many elements of Geshiza folklore are shared with other ethnic Tibetan groups. Also, Tibetan folklore is nowadays transmitted on radio and television. Against this backdrop, Kun Mchog et al. (1999: 6) argue that access to radio and television accompanied by

publications has made Tibetans more aware of the trickster characters in their folklore. The Geshiza are equally exposed to authoritative State-approved media portrayals of Tibetan folklore, which in some instances alters their perceptions of the Geshiza folklore. The example offered here concerns the story of *rʤæza æntɕoŋma*, Princess Wencheng's (文成公主) marriage to Tibet's king *srong btsan sgam po* that has become the battlefield of 'historiography wars' between Tibetan and Chinese historians (see Powers 2004: 30-38 for the common narratives of both sides). In the Chinese discourse, the story of Princess Wencheng's marriage provides a justification for the intertwining relationship between Tibetan and the Han Chinese on which to lay the claim of China's sovereign rule in Tibet (Yeh 2013: 1-2). Since the Tibetan uprising in 1959 that resulted in the Dalai Lama's exile into India, the Chinese State has used popular culture to influence perceptions on Sino-Tibetan history (Warner 2011: 241-242).

When the Geshiza are exposed to folktales from other, State-approved sources, the versions that are authoritative due to their contexts standardise the corpus of existing stories in circulation. In other words, repeated exposure to politically approved portrayals of the stories through movies, mini-series, and even books, for instance, solidifies these portrayals in the minds of a part of the audience as 'correct' and 'authoritative' vis-à-vis 'incorrect' versions by local story tellers who lack such authority in their oral performances. In other words, capturing folklore diminishes the space for variation and heterodox interpretations. People with particularly high command of Chinese are especially prone to be exposed to narratives of folklore that gently and gradually alter their own perceptions of Geshiza folklore. At the same time, stories that do not make it to the standardised corpus, such as the jokes of *ækə wæle* 'Uncle Rabbit', fail to maintain their audience and fall into oblivion at an even faster rate.

The 'unorthodox' versions of story of Princess Wencheng's marriage recorded by the author set *bələmbə ŋgær* (Tib. *blon po mgar,* usually known as *mgar stong btsan*) as the unquestionable protagonist. While his origin remains unstated, the Geshiza often localise borrowed Tibetan folk stories. Consequently, the protagonist *mgar* can be conceptualised a local man the listeners can identify themselves with. In the stories, *mgar* is portrayed as highly intelligent and witty, even able to indirectly defy *srong btsan sgam po* himself by counter-testing him back when being tested. Additionally, during the return journey from the land of the Chinese into Tibet, *mgar* falls in love with Princess Wencheng. Such hints of romance, however, are all but absent from the orthodox Tibetan and Chinese narrations of the folktale.

Songs

Songs exist among the Geshiza, but not in the Geshiza language. The Geshiza listen to Chinese and Tibetan popular music for entertainment. Songs that are remembered by some are in Tibetan and shared with the surrounding Tibetic language speakers, from whom they have been acquired through interaction. Having Tibetan as a dedicated domain for songs distinct from the spoken language reflects common pattern reported among linguistic minorities in the Tibetosphere. Many Tibet's linguistic minorities speak one language and sing in another (Roche

and Tsomu 2018).

A Geshiza man tells how he used to spend time with nomadic Tibetans in his youth, from whom he learned the songs that he performs nowadays to the delight of his family and friends. Recently it has become common for Geshiza women to record their performances of Tibetan songs and share these recordings with their friends on Weixin/WeChat. Some of such videos go viral and become popular topics of discussion. The singers perform the songs with a focus on the aesthetic value created by the phonetic properties of the lyrics, rather than on the aesthetic value of their meaning, since knowledge of Tibetic languages is rare among the Geshiza.

2.7.5. Education and transmission of knowledge

Orature served as a method for transmitting and refreshing knowledge among the Geshiza. It can thus be considered an intangible encyclopaedia of traditional cultural knowledge. In a non-literate society, the aggregate pool of orature remembered in a decentralised fashion embodies the traditional knowledge that surpasses the limited memory capacity of an individual. Against this backdrop, the weakening of intergenerational transmission of the orature forms endangers the survival of at least a part of the traditional knowledge possessed by the society. It should be noted, however, that traditional knowledge is by no means the only kind of knowledge in the communites. Practical and tacit knowledge concerning daily activities and agricultural life is usually learned by observation with a far more limited role for language.

Beliefs concerning gender and cultural knowledge

The Geshiza show a tendency to consider men more knowledgeable in traditional fields of knowledge. For example, most story tellers who announced themselves during this project were men while many females freely admitted that men have more extensive knowledge concerning their traditions and culture. Through conducted monolingual interviews on various cultural aspects, however, it became clear that Geshiza women are invaluable depositories of cultural knowledge, in some cases even surpassing men. This knowledge they consequently pass on informally to the next generations. A possible explanation for the discrepancy lies in formal education. Knowledge, including that of culture and traditions, is associated with formal education. Geshiza men in older generations have had a better access to education, giving them greater cultural prestige in matters pertaining to knowledge.

Traditional forms of education

Prior the Geshiza homeland became a part of the PRC, education existed in three forms: monasteries, *ꭤvæl* schooling, and the home (Na'erwujia 2000). In other words, monasteries and the *ꭤvæl* offered education exclusively for males with focus on religion, while one's parents and grandparents taught practical skills at home regardless of the sex. Incorporation of the Geshiza homeland into the PRC resulted in great changes in transmission of knowledge. The State has striven to provide education for everyone. As a result, compulsory modern school education

until the ninth grade has emerged as a new alternative for acquiring and transmitting knowledge. Especially the current younger generations have benefited from better education opportunities, which is directly reflected in increased working opportunities in the Chinese State. In contrast, it is not rare to find elderly people among the Geshiza who lack formal education altogether, especially among elderly females. Geshiza Valley has monasteries that provided religiously founded education for men when other formal opportunities were scarce in the past. Unlike Daofu County, for instance, the region lacks nunneries.

Modern education

In contrast to the traditional knowledge transmitted primarily in the Geshiza language, modern knowledge is transmitted through the medium of Chinese. The system provides children with essential skills needed in the Chinese society, such as literacy in Written Chinese. At the same time, parents describe the system as highly stressful for the children. Based on their performance in exams, the pupils are constantly ranked in tables for all to see.

Education and electronic media function as important routes for the acquisition of Mandarin Chinese. At present, most children have access to basic education, even though this may require commuting for a long distance or temporarily relocating close to the schools, the latter often chosen by the families. Since there is no school in Balang Village now, the children must study in the adjacent Danba County Town. Because education is seen as the key to social improvement, families have started renting apartments in the County Town closer to schools. Often the grandparents retired from active working life live together with their grandchildren in such apartments. The parents continue commuting from their villages and spend more time with their children on the weekends when the children return to their native villages.

Side-effects of modern education

Dislocation from the communities means Geshiza children receiving more linguistic stimuli from their teachers and classmates from different ethnic groups than from Geshiza speakers. In addition, all education is carried out monolingually in Chinese. This puts the non-native pupils into a disadvantageous position, since learning in one's mother tongue is shown to be far more effective (see e.g. UNESCO 2008). These factors contribute towards a potential language shift (see §2.9.4). Also, State-run education with heavy promotion of Chinese values and traditions may contribute to the assimilation of the country's minorities (Kolås and Thowsen 2005: 16). While it would be an exaggeration to say that the State consciously carries out an intentional 'epistemicide' of the minorities' traditional ways of knowledge, it remains disinterested in them and promotes its own Han-centric epistemic vision. Interestingly, test versions of a series of text books tied more closely to 'Gyalrong culture' have recently been launched, but it remains to be seen what role, if any, they will play in official education in Danba County. In all, as it has become clear, the question of education is also tied to the macro-issue of balancing change and continuity in the Geshiza culture, a theme discussed in the following section.

2.8. Change and continuity

Contemporary Geshiza culture faces simultaneous pressures to continue its traditional form and to adopt into a modernity principally conveyed by the Han Chinese through the media and direct daily interaction. The communities themselves feel that a major social transformation is currently taking place. To understand the two contrastive powers and their implications, the discussion in this section moves through sketching the local history (§2.8.1); analysing the challenges of Sinicisation (§2.8.2); and envisioning a future development path for the Geshiza culture (§2.8.3).

2.8.1. Sketch of local history

Recent historiography has become critical of grand metanarratives concerning nation-states at the expense local voices, such as those in Kham, relegated to the margins of history (see Epstein 2002: 1-2). While the Geshiza homeland provides a fertile ground for this new wave of historiography, historical research of the Geshiza homeland and the surrounding region suffers from both scarcity and partiality of the source materials. Only a limited amount of useful primary historical materials often written by outsiders exist, which contributes towards a partial, outsiders' historiography. At present, *Annals of Danba County* (1996) by the History Recording Committee of Danba County in Sichuan Province remains the most comprehensive secondary source for the County's history. Most other sources are similarly in Chinese. Writing a history of Geshiza Valley that takes better into account the agency of local actors remains a collaborative task for future scholars and locals of the region.

Semi-mythical popular history

The immediate neighbourhood of Geshiza homeland is known for semi-mythical popular history that might in part be founded on actual events and cannot thus be ignored. First, after the fall of Western Xia/Tangut empire (西夏) under Mongol rule in the early 13th century, a popular legend states that some of the Tangut royalty emigrated south, settling in what corresponds to the current Danba County. Sometimes Geshiza Valley is mentioned as the location of settlement, as in tourist literature, e.g. Chen (2006: 10), which is a Chinese-English bilingual book aimed at both domestic and foreign visitors to Danba County. At present, evidence is nevertheless lacking concerning a past Tangut settlement wave particularly into Geshiza Valley. Seen at a larger scale, a southern Tangut migration after the fall of the empire stands on a more solid ground. For instance, Huang (1991: 98) interprets the Mu(n)ya/Menya Tibetans (木雅藏族) as direct descendants of the Tangut migrants. Future multi-disciplinary research will likely shed more light on the issue.

Second, it is frequently argued that an 'Eastern Queendom' (东女国) existed to the west of the Geshiza lands. The exact location of this postulated neighbouring queendom and especially that of its capital has become under a dispute with a political dimension (Jinba 2014).

Both of the two narratives summarised above have been adopted as evidence to propagate the popular belief that Danba ladies are the most beautiful in Tibet and/or whole China, which has even led to the establishment of a 'Valley of Beauties' (美人谷) both as a label to the whole Danba County and more narrowly to a tourist spot in Badi Township. Neither of the possible historical incidents discussed above occupies a prominent place in the historical memory among the Geshiza. In sum, romantic fascination with some possible basis on historical events together with political factors added in has coloured the perception of Danba's premodern history.

Chiefdoms and the tusi *system*

Moving towards the modern times also moves Geshiza history from semi-mythology onto factual ground. The Ming and Qing Empires pushed westwards in the Sino-Tibetan borderlands where they established a loose rule over the new territories (Burnett 2014: 18; Wang 2011). Rather than ruling the annexed territory directly, the Qing authorities resorted to indirect control through *tusi* (土司), local chieftains that together with monastic institutions held actual power in the borderlands. Traditional accounts list 18 such *tusi*-ruled Gyalrong kingdoms or chiefdoms (嘉绒十八土司).

A powerful Dandong-Geshiza Chiefdom (丹东革什札安抚司) was established in Geshiza Valley, also holding territory outside the confines of the Valley. In 1776 (see Jinba 2016 for a recent English article discussing the Jinchuan Campaigns, the context of the events), the Chiefdom was politically split into Geshiza (革什札土司) and Dandong Chiefdoms (丹东土司). Geshiza controlled the area of Eastern Geshiza Valley (Balang, Ke'erjin, Dasang, etc.) and Dandong the Western and Northern Geshiza Valley (Bian'er, Mozigou, Dandong) together with the enclave of Shachong in what now corresponds to a part of Danba County (Zhao et al. 2013: 62-67). Examining the Geshiza terminology concerning the leader of the two provides an indicator concerning the relative powers of the two. The leader of Dandong was called *rdʑælpə* 'king' (Tib. *rgyal po* 'ibid.') while the ruler of Geshiza residing in his palace in Eluo (Ge. *ŋguələ;* Ch. 俄洛) Village was referred to as *ɑpən* 'chief, leader' (Tib. *dpon* 'chief, leader').

Chiefdoms in the area surrounding the Geshiza homeland frequently waged war, intermarried, and formed alliances with each other (Meng 1987a). Before its demise, the Qing government abolished the *tusi* system in Geshiza, Dandong, and Bawang in 1911, leading to the creation of Danba County, a new political unit (Qin 2013: 63). Nevertheless, due to the subsequent Railway Protection Movement (保路运动;) in Sichuan and the following Xinhai Revolution (辛亥革命) that resulted in overthrowing the Qing dynasty, the actual establishment of the new County took until 1914 (Meng 1987b: 140). The new name Danba (丹巴) was coined by combining characters from the Chinese names of the region's three previously existing tusi-chiefdoms: **Dan**dong (**丹**东), **Ba**di (**巴**底) and **Ba**wang (**巴**旺).

The collective memory of the past political system is strongly alive among the Geshiza, despite most community members lacking any direct experience from it. Generally speaking, the *tusi* system is described as harsh. It is difficult to analyse to what extent the official State

discourse about Tibet's past has affected the collective historical memory. Commoners were responsible to perform unpaid corvée labour to their chieftains for a fixed duration annually. Chieftains had the right to issue additional orders for the commoners and they also had the right to inflict physical punishment on those who failed to follow the orders or breached the norms of the society. Reflecting this, through semantic deterioration, the Geshiza word *ɲjɔ* 'serf, servant' (Tib. *g.yog* 'servant') has gained a secondary meaning as an expletive, for instance when referring to a lazy person or a recalcitrant domestic animal failing to carry out its work.

Incorporation into the PRC and modern times

Modern history of Danba and the Geshiza starts with the incorporation of the region into the newly-formed PRC by the Chinese People's Liberation Army in 1950 and the subsequent establishment of Danba County People's Government the next year. The political incorporation led to the abolition of local rule. Even though the ruling class was 're-educated', some ex-chieftains nevertheless managed to gain positions of power in the new Chinese political system, among them the ex-landlord *ɟapældæn* of Geshiza (based on reports of oral history).

The Great Leap forward (1958-1962) and the Cultural Revolution (1966-1976) greatly affected the Geshiza homeland. Oral history states that food was scarce and private eating or even making fire were forbidden, since fire could be used for cooking food, thus hinting about stockpiling private food illegally. Instead, the Geshiza consumed all meals together in communal canteens. The harsh conditions forced some to resort to supplement their diet with shrubs previously reserved for animals only, which reportedly starved some physically weaker community members to death. Celebrating the Tibetan New Year (see §2.4.1) was forbidden, everyday work being equally compulsory on this important pan-Tibetan festive occasion. The new regime also attempted a system of people's communes (人民公社), under which villages became production teams (生产队). The system came to its end in 1984 with the abolition of the people's communes. The old terms, such as 'commune' (公社), are nevertheless still used by many Geshiza, including the young who lack personal memories of the era.

A recent minor political change took place when the status of Geshiza Township (革什扎乡), the administrative unit where most Eastern Geshiza live, was upgraded into Geshiza Town (革什扎镇). In all, the recent history in Geshiza Valley has been characterised by increasing interaction with the Han Chinese and rapid modernisation, the topics of the next subsection.

2.8.2. Sinicisation and challenges of modernity

The Open Up the West Programme (西部大开发) triggered intentional modernisation in the Tibetosphere at around the beginning of the new millennium. The start of the modernising project functions as the major watershed for timing modernisation in the region (Roche 2017). The Geshiza acknowledge that modernisation is rapidly changing their culture, yet the general attitude reflects a positive outlook on modernity in contrast to the past generally conceptualised as times of hardship. The attitude is succinctly voiced out by a retired Geshiza lady:

> *In the past, there was a lot of work to do, right? All work was hard, and there was a lot of work to do. Now the work is easy, and food and drink are plentiful.* […] *In everything, the conditions have become better. We are happy.*

Pursuit of Han Chinese modernity

For the Geshiza, modernity is primarily conveyed by the Han Chinese, and it is consequently justified to talk about Sinicisation. Cultural change, especially in material culture, is primarily caused by the influx of Chinese-made products into the communities. Since the economic conditions improve, people can afford to buy new Chinese-made products that gradually replace the traditional hand-made items. As Van Way and Bkrashis Bzangpo (2015: 250) show concerning speakers of Nyagrong Minyag, another Horpa language, loss of traditional material culture goes hand in hand with loss of language in the communities, especially in terms of lexical diminishment. This happens equally among the Geshiza.

In discussing the Gyalrongwa, Burnett (2014: 63) states that the coming of electricity has been the catalyst of change for people's lives. Following the expansion of electricity supply, televisions are now wide-spread in the Geshiza Valley. As a result, many Geshiza spend a part of their evening by watching Chinese television programs (see also §2.7.4. *Electrification and storytelling*). A wide array of casual entertainment is now available throughout the day, a situation that would have been almost unimaginable even several decades ago.

Television programs facilitate both linguistic and cultural assimilation into the dominant Han Chinese culture. In other words, television both shows the Geshiza the Chinese dream and helps people improve their competence in Mandarin Chinese. Since the young prefer television programs over traditional stories and other traditional means of entertainment, the stories have lost their audience, which is directly contributing towards their oblivion. In overall, television constitutes one of the most influential factors affecting the development of the Geshiza culture at the moment. Similar to the situation with the Geshiza, G.yu lha (2012: 25) reports that in Rangtang County (壤塘县) north-west from Danba County, Lavrung children's language is influenced by television programs that they watch in Chinese.

Modern technology *per se* is not inherently bad. On the contrary, it also supports the Geshiza culture. Smartphones and wireless Internet are now becoming ubiquitous, enabling the Geshiza to use social media applications, such as Weixin/WeChat, to send recorded audio messages in their own language. The Geshiza have eagerly adopted this technology and they now use the smartphone to stay connected with their relatives and friends in their native tongue, especially when distance hampers frequent face-to-face communication. This illustrates the obvious: the modern way of living in itself presents no threat to the Geshiza culture. Depending on how it is applied, the ongoing global digital revolution has the potential to help the Geshiza language and culture flourish in the 21st century.

'Territorialisation' of the landscape

Yeh (2013) describes a process of 'territorialisation' in which the PRC naturalises the association of Tibet under its control through transformation of the material landscape. Territorialisation is ubiquitous among the Geshiza and has led to noticeable transformation of the landscape after its political incorporation into the PRC. For instance, massive power lines, the Jiniu Hydropower Project (吉牛水电站) in Geshiza River, newly-paved roads, mines, signage, and the Chinese flags placed on top of virtually every building illustrate the transformative power of the State. Moreover, all these cofunction as powerful symbols proclaiming the State's control and its legitimacy in Geshiza Valley.

In particular, hydropower projects transform landscape at large scale. An extreme case is that of the Nyagrong Minyag speaker homeland in Xinlong County. The speaker communities of Nyagrong Minyag will become totally inundated if a current dam project is carried into completion (Van Way 2018: 13). While the Geshiza River dam project is unlikely to cause transformations at such level, it will nevertheless have far-reaching negative effects in Geshiza Valley in the long term. The Geshiza homeland is currently subject of extensive hydropower development and other ongoing and connected projects similar to the dam, for example in Mozigou (Ge. *mædzə-qlo;* Ch. 磨子沟). These projects will ultimately transform the beautiful natural landscape and a unique ecological environment irreversibly, which will also likely have unpredictable effects. Yet, the projects also have inarguable benefits for the locals, such as the provision of a more stable supply of electricity. For instance, power cuts in Geshiza Valley have become less frequent in recent years. Despite this, in the overall picture it is unsure how much concrete benefits the local communities reap, since the produced electricity may be transferred to other locations, and the work force to build the stations mainly consists of workers from other locations. While lacking agency in deciding the local development trajectories and being acutely aware of the environmental impacts, at least some locals have accepted the transformative projects as a price the communities have to pay for the rapid development and rising standards of living.

The State is engaged in extensive housing development, especially in Danba County Town and its immediate surroundings. Development of housing is tied to the question of place name language policy and slowly transforms the toponymic environment. The local government often creates no new Tibetan toponyms, be they in Written Tibetan or Geshiza, for newly constructed locations. In such cases, two scenarios are possible. If the Geshiza already have a toponym for a place before the commencement of extensive development and construction, that toponym remains in use despite a new official Chinese toponym. This applies to the case of Xinqu (Geshiza *bədzu;* Ch.新区) that according to local oral histories used to be Geshiza land before large-scale Chinese construction commenced there. Alternatively, and in a far wider scale, when no previous Geshiza toponym exists, the Geshiza borrow the Chinese toponym. For instance, the new district of Sanchahe (Ge. *sæntʂʰaxo;* Ch. 三岔河) that currently provides housing for many ethnicities of the county, including the Geshiza, is undergoing massive

development in Danba County Town by the government. Finally, the existence of Chinese written toponyms and the prestige attributed to writing has caused some Geshiza to believe their native tongue toponyms to be mere distorted forms of the 'original' Chinese ones with a written form, even in instances where the Chinese toponym is a mere transliteration of the Geshiza original. In sum, increasing development in the region leads into Sinicisation of the toponyms by making the proportion of Chinese-only toponyms gradually higher, with the result that spatial discourse becomes increasingly dependent on reference points implicitly displaying the control and power of the Chinese State. The phenomenon coincides with Kolås and Thowsen's (2005) remarks about an ongoing Sinicisation of toponyms at the Sino-Tibetan borderlands.

2.8.3. Future of the Geshiza culture

As illustrated in the previous subsections, the Geshiza culture is a fascinating mix of indigenous, Tibetan, Chinese, and other regionally adapted elements, which results from the community's crucial location at a civilisational convergence zone. Inarguably, the omnipresent and increasing Chinese influence constitutes the dominant factor shaping the contemporary Geshiza culture. Especially the younger generation has at least to a degree been Sinicised and adopted parts of the Han Chinese culture. Since knowledge of the Chinese language provides a key to socioeconomic advancement, many young people attempt to master it in both spoken and written form. In addition, Chinese-medium education greatly shapes the linguistic and cultural identities of Geshiza children. Children frequently play together in Chinese, even though they still have at least full passive understanding of the Geshiza language spoken in their home villages. Similar cases have been reported from among other linguistic minorities in contemporary China, e.g. among the speakers of Wadu Pumi (Daudey 2014: 5), demonstrating the wider scope of the phenomenon in the Tibetosphere.

Extrapolating from the present situation indicates that further assimilation to Han Chinese will continue unabated, likely even at an increasing speed in the future. Under these circumstances, the strongholds of the traditional culture will be found in the most remote places that have the least exposure to the Chinese culture and language. Since Geshiza Valley takes the shape of a corridor leading to Danba County Town, I expect villages closer to the County Town, such as Balang, to be Sinicised faster than villages located further along the corridor, such as those around Dandong region in Western Geshiza where the Western Geshiza dialect is spoken. In any case, because of unpredictable factors, it is still impossible to say whether the assimilation will one day be complete or whether the Geshiza will retain their culture core in the future. Ample examples from other parts of the world showcasing revival of ethnic identity and consciousness point towards surprising resilience and at least partial cultural continuity, rather than complete assimilation, for the Geshiza as well.

In the larger context of Tibetan culture, one of the difficult choices in cultural survival takes the form of balancing the need for modernisation and preserving cultural traditions (Kolås and Thowsen 2005: 10). This notion equally applies to the future of the Geshiza culture as well.

Successful cultural preservation consequently balances between both the need of the Geshiza to share the tempting 'Chinese dream' of modernity constantly portrayed to them through all available media, and the need to retain the essence of the shared cultural traditions. As illustrated in the previous subsection in the context of information technology, modernisation is not single-handedly merely a threat, but also a possibility with the potential to increase the agency of the Geshiza in the contemporary world. In the context of documenting the culture of the Hadzabe, one of the last hunter-gatherer tribes in the world living in Tanzania, Peterson et al. (2013: 186) neatly summarise the core issue many indigenous people balancing between cultural continuity and change are facing:

> Cultures are, and always have been, dynamic and change is inevitable as cultures adapt to new situations, pressures and opportunities. If we accept this premise, the issue and challenge becomes one of whether the change is at least largely 'owned' by the culture or is externally imposed. At its core, this is a question of dignity and of options or choice.

2.9. Geshiza language in the society

By primarily focusing on social factors, this section offers information relevant for understanding the vitality and possible future trajectories of Geshiza. The discussion is divided into an overview (§2.9.1); illustration of domains of language use (§2.9.2); vitality assessment (§2.9.3); and possible future prospects of the language (§2.9.4).

2.9.1. Overview

I estimate the number of Eastern Geshiza speakers at approximately 5000 and the total number of all Geshiza dialect speakers at approximately 8000 individuals. The figures derive from Chinese census data. According to the Fifth National Population Census of China, the Geshiza Valley has 4960 residents. While some non-Geshiza immigrants inhabit the Valley, most people registered in it speak Geshiza as their mother tongue. In addition, some Geshiza also live in the adjacent Danba County Town. From these two facts, Eastern Geshiza can be estimated to have approximately 5000 speakers. In addition to the 5000, including census data from Bian'er (1772 residents) and Dandong (1209 residents) Townships brings the total number of all Geshiza dialect speakers to approximately 8000 individuals.

The structure of multilingualism in Danba County, as regards Chinese and the regional languages, forms a 'hub and spokes' network in which Chinese functions as the hub and the regional minority languages as the spokes. In other words, while virtually all regional languages have a strong unidirectional multilingual relationship with Chinese, direct multilingual connections between these languages are considerably weaker, even though they exist and should not be underestimated (see §2.4.2 on exogamous marriages as a factor in multilingualism, for instance). In other words, society-level 'tribal multilingualism' in which neighbouring

ethnic groups can speak the neighbouring tribal languages is weak now. Under partial mutual intelligibility, each speaker uses either Chinese or their own lect. When mutual intelligibility is impossible, Chinese functions as the interethnic the lingua franca.

Geshiza Valley has two dominating languages: Geshiza unrecognised by the State and Chinese, the official language at the State level enjoying full recognition. Virtually all inhabitants of Geshiza Valley, including many of the elderly, know both of the languages. Chinese appears in two forms. Sichuanese Mandarin that constitutes the L variety for oral communication and Standard Mandarin (Putonghua, 普通话), the H variety used for writing and formal speaking, the latter not known to all Chinese speakers. Chinese 'language' as a monolithic concept is more political than linguistic. The local lect of Sichuanese Mandarin diverges from Standard Mandarin in its phonology, lexicon, and grammar in major ways, which justifies its classification as a separate language. Recently, the Sichuanese Mandarin is facing pressure due to standardisation attempts into Putonghua. This mostly concerns the children whose linguistic repertoire can still be moulded with relative ease at school.

While bilingualism characterises the Geshiza society, knowledge of Chinese, especially of the written standard language, varies across individuals. The young generally have a higher fluency in the language and they also tend to be more literate because of longer exposure to Chinese-medium education. In contrast, it is common for the elderly to be illiterate or to know only the rudiments of Written Chinese. Based on retrospective family pilot interviews in Balang Village, Chinese has established a solid presence only after the Geshiza lands were joined to the newly-formed PRC, which led to the establishment of Chinese-medium schools and increased interaction with the Han Chinese. Parents of people who are in their fifties were mostly monolingual, some but not all with elementary knowledge of spoken Sichuanese Mandarin. After the establishment of the Chinese regime, the generations that were already old enough not to undergo subsequent Chinese-medium education acquired the Chinese language by exposure in their daily lives, no written materials being used.

Family tradition equally states that knowledge of Tibetan was elementary or non-existent among the parents and grandparents of the Eastern Geshiza who are currently retired. There is consequently no big difference vis-à-vis the present situation. In sum, the current Geshiza-Chinese bilingualism that characterises Geshiza Valley has emerged in a short period that covers at most seventy years and probably somewhat less. This provides a representative example how a linguistic ecology may undergo major changes in a matter of decades.

At present, Geshiza functions as an in-group language. In other words, it serves as the communication tool within the villages and when visiting places in relative vicinity where the Geshiza dialects or other Horpa lects remain comprehensible to the Geshiza. In contrast, Sichuanese Mandarin is used when communicating with outsiders, such as the Han Chinese people and non-Horpa-speaking ethnic Tibetans from the surrounding areas. Chinese is also the default language tried on visiting foreigners, since international lingua francas, such as English, are not widely spoken in the region. Because knowledge of Tibetan is limited in Geshiza Valley,

no Tibetic language functions as a lingua franca among the different groups. Some elderly Geshiza lament that Written Tibetan is not widely taught among the Geshiza. This statement, however, may contain a practical dimension. The Geshiza report that they may sit the State exams required for receiving a position in State Administration either in Written Tibetan or Written Chinese. Due to fierce competition with a multitude of native speaker Han Chinese applicants in the Chinese-medium exam, passing the notoriously difficult exams is reportedly easier for a Tibetan as a second language speaker than for a Chinese as a second language speaker.

While knowledge of global foreign languages is fragmentary among the Geshiza, individual phrases, such as English 'Hello!' together with Japanese salutations and expletives have spread due to exposure on television. Some highly educated people residing in the immediate area of the Geshiza, e.g. doctors, occasionally have conversational competence in basic English, yet most such individuals are Han Chinese. Notwithstanding, in the long run, knowledge of foreign languages is expected to greatly increase in the region, particularly if tourism continues to grow in Danba County. Signs of this happening are already visible. Similar to the situation in many corners of the globe, Geshiza parents feel a strong desire to encourage their children to learn English, which shows them recognising the role of the language in the globalised world now. English is currently taught in Danba primary schools and the youngest age cohorts of pupils show signs of having learned some basic everyday phrases and expressions.

2.9.2. Domains of language use

Three languages share a daily presence among the Geshiza: Chinese in its Standard Mandarin (H) and Sichuanese Mandarin (L) lects, Tibetan, and Geshiza. The languages have differing societal functions and they occupy different domains, illustrated in Table 2.10 below:

Table 2.10. Domains and language use among the Geshiza

Domain	Language use		
	Geshiza	Chinese	Tibetan
Home	✓	✓	✗
Work	✓	✓	✗
Education	✗	✓	✗
Interaction with authorities	✗	✓	✗
Traditional media	✗	✓	✗
Social media	✓	✓	✗
Prayer	✓	✗	✓
Music	✗	✓	✓

Modernity has created new domains, such as social media in recent history and state-organised education several decades ago. As a general trend, Geshiza is hardly used in any new domains entering the speech communities, where Chinese is adopted instead. At the same time, domains that were traditionally Geshiza-based have become bilingual in Geshiza and Chinese. For instance, since part of work is now carried out with Han Chinese, the Chinese language has entered the domain of work. Currently, the only major domain where Chinese fails to appear is prayer. Tibetan has the narrowest domain of use, since the language is only used in prayer and religious ceremonies in addition to Tibetan music. Tibetan is often used with no deep knowledge of meaning. In all, similar to the use of Arabic among non-Arabic speaking Muslim communities around the world, Tibetan used by the Geshiza is best seen as a liturgical, religious language.

2.9.3. Vitality assessment

This section offers a vitality assessment of Geshiza. No vitality assessment directly applicable to the language has ever been carried out. Ethnologue categorised the language status of Horpa, the general category under which Geshiza falls, as 6a or 'vigorous' (Paul, Simons, & Fennig eds. 2016). In the latest 2019 edition, this has been changed into 6b 'threatened' (Eberhard, Simons, and Fennig eds 2019). The catalogue, however, lumps all Horpa lects and languages under the category 'Horpa' and consequently does not list Geshiza as a separate entity. Seen against the vitality assessment offered herein, the recent downgrading in the language's status undeniably reflects better the reality Geshiza speakers are now facing.

In addition to, only the vitality of the related Stau language has been hitherto reliably surveyed (Genxia Wengmu and Suzuki 2008; Tunzhi 2017). The results show Stau as threatened and its use in decline. Other Horpa languages can be expected to be facing similar issues of vitality, but sociolinguistic surveys of all major lects are needed, since conditions might differ in different communities.

Tunzhi (2017) applies the UNESCO's nine-factor model for assessing the vitality of Stau. Following Tunzhi, I apply here the same model to analyse the vitality and future prospects of Geshiza. Table 2.11 on the following page presents a summary of the assessment. UNESCO (2003: 2) defines endangerment in the following terms (italics original):

> A language is *endangered* when it is on a path toward extinction. Without adequate documentation, a language that is extinct can never be revived. A language is in danger when its speakers cease to use it, use it in an increasingly reduced number of communicative domains, and cease to pass it on from one generation to the next. That is, there are no new speakers, adults or children.

The model includes nine factors to be used together in assessing a language's sociolinguistic situation, namely six factors to evaluate a language's vitality and state of

endangerment, two factors to assess language attitudes, and one factor to evaluate the urgency for documentation.

Table 2.11. Vitality of Geshiza measured by the UNESCO (2003) scale

Factor	0	1	2	3	4	5
Intergenerational transmission (1)	extinct	critically endangered	severely endangered	definitively endangered	unsafe	safe
Absolute number of speakers (2)	approximately 5000 for Eastern Geshiza, approximately 8000 for all Geshiza lect varieties					
Proportion of speakers within the total population (3)	none speak the language	very few speak the language	a minority speak the language	a majority speak the language	nearly all speak the language	all speak the language
Trends in existing language domains (4)	extinct	highly limited domain	limited or formal domains	dwindling domains	multilingual parity	universal use
Response to new domains and media (5)	inactive	minimal	coping	receptive	robust/active	dynamic
Materials for language education and literacy (6)	no orthography	orthography with some materials	written materials exist	written materials exist, children exposed to writing	children learning literacy at school	established orthography and literacy tradition, writing used in education
Institutional attitudes and policies (7)	prohibition	forced assimilation	active assimilation	passive assimilation	differentiated support	equal support
Community members' language attitudes (8)	no one cares	a few members support	some members support	many members support	most members support	all members value
Amount and quality of documentation (9)	undocumented	inadequate	fragmentary	fair	good	superlative

1. Intergenerational transmission

The first factor, intergenerational language transmission, assesses transmission of the language to new generations. The classification of Geshiza falls into the category *unsafe* (4): even though most children speak the language as their first language, it restricted in its social domains (see §2.9.2). Many Geshiza school children have become more fluent in Chinese than in Geshiza, which they nevertheless still understand perfectly, albeit often avoid speaking. Children also often reply in Chinese to their parents who address them in Geshiza. They mostly play among each other in Chinese after they have been exposed to the language in kindergarten. At present, the pattern of language preference sets in already in kindergarten, since sending children to kindergartens has become commonplace. For instance, the grandchild of one of the consultants used to address her family and the author in Geshiza until she started kindergarten. Afterwards, in a matter of mere two months, Chinese became her preferred language, and she stopped using Geshiza actively, even though her passive command of the language likely continues to improve gradually as a result of constant exposure at home. In all, while Geshiza is still commonly acquired as the first language at home and qualifies for a mother tongue, the youngest generations quickly gain a command of Chinese that surpasses that of Geshiza. If the current trend continues unabated, intergenerational transmission of Geshiza will completely cease in one or two future generations, which leads to extinction. Prior to that, at least the Eastern dialect of the language will likely become highly endangered in merely one generation. Participant observation in Balang shows that the change from safe to unsafe in intergenerational transmission has happened fast and only recently in the village, well into 2000s.[28]

2. Absolute number of speakers

Factor two addresses the absolute number of speakers, which in the case of Eastern Geshiza is approximately 5000 (see §2.9.1). The mere number of speakers nevertheless fails to adequately assess the viability of a language, and the factor is thus best used in a supporting role to the others. Nevertheless, other things being equal, a small population is much more vulnerable than a larger one (see UNESCO 2003: 8). Consequently, the relatively small size and narrow geographical distribution of the Geshiza under constant Chinese immigration to the region make the community extremely vulnerable.

3. Proportion of speakers within the total population

Seen in the light of factor three, proportion of speakers within the total population, Geshiza qualifies for *all speak the language* (5). The evaluation of this factor depends on the reference group applied. While all Geshiza still speak the language (see §2.9.4 concerning challenges of

[28] The process of endangerment occasionally happens with alarming speed. Geshiza is far from being alone in transitioning from vital to endangered surprisingly fast. For instance, Noonan (2007b: 115) describes how the Nar-Phu language (Trans-Himalayan; Nepal) appeared quite vital in 1996, but by 2001, the young had already almost completely switched to Nepali. Cases of Geshiza and Nar-Phu serve as case studies highlighting the urgent need for early documentation of seemingly vital smaller languages whose status may change with unanticipated speed.

future transmission), not all people in the Geshiza homeland do. Evaluating the proportion of speakers within the total population in the Geshiza homeland would yield the value *nearly all speak the language* (4). Even though all Geshiza still speak the language, many outsiders, especially Han Chinese, actively immigrate into the region. The Han immigrants into Geshiza Valley almost never acquire the Geshiza language beyond everyday greetings.

4. Trends in existing language domains

Factor four, trends in existing language domains, focuses on the existing domains in which a language is used. Geshiza is currently facing *dwindling domains* (3) (see §2.9.2). The language is losing ground and parents at home have begun to also use Sichuanese Mandarin when interacting with their children. This may lead into some of them becoming receptive bilinguals as adults. While such individuals will retain their ability to understand Geshiza when talked to by the elderly, they will have a limited ability to produce complex utterances in the language.

5. Response to new domains and media

Complementing factor four, factor five focuses on the language's response to new domains and media. In Geshiza this is *minimal* (2): the language is practically 'invisible' in the new domains that are introduced. The Chinese social media smartphone application Weixin/WeChat that allows its users to send each other audio messages in addition to conventional written messages constitutes the most prominent example of Geshiza being used in a newly-introduced domain (see §2.7.4, §2.8.2). Since Geshiza lacks a writing system, this function is a welcome addition, but virtually all other new domains and media can only be accessed through Chinese. At the same time, the Geshiza have stated to value these new domains more than many of the traditional ones, leading into replacement of domains and subdomains, e.g. the moribund traditional folktales. Since old Geshiza-speaking domains are abandoned while virtually all new domains enter the community as Chinese-speaking, the long-tern situation of Geshiza appears threatened from this viewpoint as well.

6. Materials for language education and literacy

Factor six discusses materials for language education and literacy. Geshiza scores the lowest (0): *no orthography available to the community*. Not only has the language no role in education, but in addition, children are encouraged to speak only Chinese in educational domains. Consequently, graphisation is urgently needed to address the current vulnerability of the language, and some interviewed community members consider the issue important. The topic is subsequently discussed further in the following subsection about the future of Geshiza.

7. Institutional language attitudes and policies

Factor seven concerns institutional language attitudes and policies. The Geshiza face *forced assimilation* (1): the government has an explicit language policy declaring the dominant

language the sole official language while the subordinate groups' languages lack recognition and support. The situation of some minority languages, such as ('Standard') Tibetan in the Tibetan Autonomous Region, is somewhat better, since they have a regional official status. In theory, the Chinese Constitution guarantees the minorities' right to use and develop their languages, and this takes place to an extent among some languages of officially recognised nationalities. In practice, most State policies encourage assimilation. Geshiza, like the majority of languages spoken in the PRC, lacks any support and recognition from the State. The government and institutional policies encourage the use of Standard Mandarin, the national language of the State. Lack of institutional support and insufficient implementation of the constitutional rights thus further weakens the situation that Geshiza among most minority languages is facing in the PRC.

To illustrate the effects of government policies, Tunzhi (2017: 155-156) reports how new policies have led to the demolition of village-level schools due to the concentration of education infrastructure in township-level schools in Daofu County where many Stau speakers reside. Similarly, in the adjacent Xinlong County where speakers of Nyagrong Minyag live, Van Way and Bkrashis Bzangpo (2015: 251), report on closure of local township schools that have been replaced by primary education in the local County Town. The same centralisation process has taken place among the Geshiza as well. To illustrate, Balang Village had its own village school in the past, but due to its closure, pupils now need to study in Danba County Town, from where they return to the Village on weekends only. Consequently, instead of interacting daily with other children with similar linguistic backgrounds, Geshiza pupils spend most of their day with speakers of other languages, creating a strong impetus to speak Chinese even among the fellow pupils, since Geshiza is understood only by a part of the pupils at school.

8. Community members' attitudes toward the language

Along factor eight, community members' attitudes toward the language, Geshiza qualifies for *most members support* (4). The Geshiza see their language in positive light and the elderly lament its state among the young – while continuing to address them frequently in Chinese. Many speakers take noticeably pride in their language and the traditional culture connected with it. It was stated, for instance, that Geshiza is a very old language shrouded with mysteries. Many speakers were also curious to know if their language is spoken in other places outside Geshiza Valley, such as in foreign countries. Few interviewed speakers, however, saw their language in a more negative light, describing it as 'bad Tibetan'. Also, since public toponymic signage is written in Chinese and Tibetan, the former of which is understood by many in the Geshiza language community, some speakers see the Geshiza pronunciation of local place names a corruption of the correct Chinese 'originals' (see §2.8.2). Here, the lack of a writing system clearly contributes towards inferior language attitudes.

9. Amount and quality of documentation

Finally, in terms of factor nine, amount and quality of documentation (9), the situation of Geshiza is classified as *inadequate* (1) prior to publication of this grammar. The descriptive sketch of Duo'erji (1997) was the only monograph written on Geshiza. The author hopes that the publication of this grammar and its future outgrowths rise the language's classification into *fragmentary* or eventually even into *fair*.

2.9.4. Future of the Geshiza language

This subsection is dedicated for the future of Geshiza and measures that can affect its future trajectories. Due to its nature, it is more speculative in comparison to previous discussion. As demonstrated in this chapter, Geshiza has become endangered, and major parts of this process have occurred in only a matter of decades. Rather than as an individual case, the endangerment is best seen from the viewpoint of the linguistic ecosystem of the Tibetosphere. In this century, China is facing a widespread loss of languages, especially in the Tibetosphere (Roche 2017: 24). While it is estimated that 20 percent of languages in Asia in general are endangered, the language endangerment crisis that China currently faces takes far direr proportions with approximately half of its languages being endangered (Roche and Tsomu 2018).

Community's viewpoint and action

Without any external stimuli, some Geshiza have become aware that a gap between the language of the younger and elder speakers exists, also noticing that the language is not fully transmitted to the new generations. As a logical afterthought, some speakers consequently express the view that their language is going to disappear one day.[29] The sentiment is well expressed by an elderly Geshiza lady as follows (summary of an informal conversation):

> *Geshiza will disappear. In the past, there was no kindergarten, but now children go to kindergarten and then to primary school where the teachers teach only in Chinese. When the children come back (from the County Town to their respective villages on the weekends), they speak only Chinese, even when we speak Geshiza to them. But Geshiza is important (lit. Geshiza is needed)!*

A gap exists between this perceptive sentiment and initiating concrete action to slow down or even reverse language endangerment, which is partially explainable by the prevailing political circumstances. I have not found any local language activists engaged in reversing the

[29] I have never initiated discussions on language endangerment with the Geshiza by telling them that their language is endangered. Rather, occasionally when talking with me, people themselves express their justified fear and concern that Geshiza has become endangered since the younger generations are not using the language anymore and fail to gain a higher competence in it. I have heard the young also question why they do not speak the language to the same extent as their elders. All this exemplifies existing concern for the language that rises from the communities themselves, rather than being planted there by the author or other outsider actors.

current trend among the Geshiza. Most positive things tend to happen at the micro level, such as grandparents teaching their grandchildren the Geshiza equivalents of more technical Chinese terms when asked to do so by their school-age grandchildren. The situation partially originates from a lack of resources. For instance, no pedagogical resources exist for Geshiza. In contrast, some elders concerned about the disappearance of traditional cultural forms, such as the replacement of Geshiza dances by Chinese ones, have taken concrete action to reverse the development. For instance, young dancers have been taken to dance camps to better learn the traditional dances. This indicates that current inaction cannot be equated with lack of concern, but rather results from a lack of means to react. In all, while the present is characterised by passivity, rapid changes in language attitudes are also possible, which may lead to action offering Geshiza more support in the future.

Changes in the language

Rather than with statistic validity, the following impressions follow from four years of interaction with Geshiza speakers of various ages. A picture of imminent changes in the language is emerging. The language is currently ongoing phonological simplification, lexical replacement, and grammatical restructuring. In other words, all major systems of the language, phonology, morphosyntax, and lexicon, are deeply affected. These changes likely exist at a far larger scale in the language of small children, thus becoming more visible when the new generations replace the current ones. For instance, being a minority case, the verb for wanting in Geshiza requires a genitive Experiencer subject (2.4; see §7.4.5). Possible linguistic influence from Chinese (2.6; no marking on the subject) may explain why this fails to surface in (2.5), an overheard utterance by a Geshiza school boy that only contains the commonly occurring unmarked absolutive subject. While the present case is an illustration of one individual only, if similar changes gain ground among the youth, the innovations may gradually become a new norm in the language, yet the time is not yet ripe for such speculation.

(2.4) *ŋɛ* *mə-ɕe.*
1SG.GEN MOD.NEG-want.NPST
I don want (it). (currently accepted norm) (OU)

(2.5) *ŋa* *mə-ɕe.*
1SG.ABS MOD.NEG-want.NPST
I don't want (it). (overheard child's language)

(2.6) 我 不 要。
wǒ *bú* *yào.*
1SG NEG want
I don't want (it).

Language endangerment often manifests in phonotactic simplification (Andersen 1982: 95). Geshiza is known for many two- or three-member consonant clusters (see §3.3.3). Some of such clusters only occur in words on the brink of obsolescence, such as *ndj* in *ndja* 'to learn a lesson'. Also, many clusters are only manifest as 'phonological hapax legomena' in rarely used words, a part of which seems to be falling into disuse. Therefore, accompanying lexical replacement, the phonotactics of Geshiza will irretrievably change. Also, as argued in §3.5.1, the consonant cluster system itself is undergoing simplification among some younger speakers. This change concerning a subset of the clusters is only emergent, with no guarantee that the current variation between full and simplified forms eventually solidifies into a permanent simplification of the system, even though such scenario is certainly possible. Extended contact with Chinese likely explains at least a part of this simplification process.

Some morphosyntactic strategies only mastered by the elderly, e.g. the archaic imperative (see §10.2.5), characterise speech genres expected to become near-extinct in the following decades. Morphosyntactic loss thus accompanies genre loss. At the same time, new grammatical constructions are emerging as contact-induced change (see §14.3.2 for borrowing Chinese function words). The changes at this stage are thus better conceptualised as grammatical restructuring, not merely as grammatical simplification, a phase into which the language may eventually move.

Lexical replacement constitutes an already easily noticeable change characterising Geshiza. Many young speakers lack deep knowledge of the full 'traditional' Geshiza lexicon, especially of lexical items of Tibetan origin that abound in the folklore register (see §14.4.2). Inability to fully comprehend traditional stories, a problem reported by most young people during the project, is likely an additional contributing factor in making them an unattractive form of entertainment. Also, changes in the material culture discussed in §2.6.2 mean that lexicon associated with traditional technology that falls into disuse is forgotten or even more often, never learned altogether by the younger generations. For instance, the young in Balang Village generally fail to recognise the word *grə* 'boat, especially in reference to a traditional boat made of wood and animal skins' which has been replaced with a Chinese loanword *ʈʂʰyæn* < Ch. *chuán* 船 'boat'. The young thus resort to Chinese loanwords supplement their lexical gaps. As explained in chapter 14 and illustrated by the example above, while many lexical items of native Geshiza and Tibetan origin have become associated with tradition, new Chinese loanwords convey an image of progress, welfare, and modernity. This lexical replacement process is expected to continue at an increasing rate in the future.

Possible trajectory towards a 'mixed language'

Taking a holistic picture, I estimate that Geshiza will initially move towards a language type that has been called 'mixed language' in the literature. While the consensus is lacking on the existence of mixed languages involving Sinitic and non-Sinitic languages, Wutun (see Sandman 2016 for a description) and Daohua (see Yeshes Vodgsal Atshogs 2004 for a description) have

been proposed as candidates in the Eastern Tibetosphere (Dede 2018). In the case of Geshiza, the question concerns the structure of the mixed language. Current trends point towards a morphologically reduced Geshiza-based syntactic core with a lexicon heavily influenced by Chinese, but it is still too early to draw any conclusions on the issue.

Possibility of language shift

Code-switching between Geshiza and Sichuanese Mandarin has become a common discourse strategy. Extrapolating from the present facts projects that Geshiza speakers will eventually switch into Chinese, possibly through a stage of a mixed language discussed above. Importantly, the neighbouring Stau has taken the opposite directory by a showing shift into Tibetan. This too, needs to be seen in a larger picture, since it reflects the ongoing change in linguistic ecology at the macro level. Finding all of the surveyed 20 minority languages of the Eastern Tibetosphere endangered, Roche (2018) posits a geographic dividing line in language shift in which speakers east from the line are shifting into Chinese and west from the line into Tibetan. Language-shift into either Chinese or Tibetan with their variants is thus taking place at the ecological level, and the situation Geshiza is facing reflects this current macro-trend of Sino-Tibetan borderlands.

Strategies for language maintenance

While Geshiza is endangered and will likely become increasingly less vital gradually, language maintenance is still possible among all Geshiza speaker communities, including the 5000 speakers of Eastern Geshiza whose dialect is likely under a greater threat due to the speakers' proximity to the County Town that projects heavy Chinese influence into the surrounding countryside. Naturally, linguists must be realistic about their own abilities to contribute towards language revitalisation and maintenance. Without overestimating the capabilities of non-local scholars to influence language maintenance and offer support, several measures taken by outsiders can nevertheless have a positive effect for the future of minority languages, such as Geshiza and the other Horpa varieties.

First, graphisation, namely creating a writing system that will be accepted and used by the speaker community members, may slow down language shift into Chinese among Geshiza speakers. Together with systematic usage, community acceptability, rather than strictly following the phonemic principle, lies at the core of successful graphisation (Crowley 2007: 44). In practice, gaining acceptance for a newly coined writing system often presents major challenges for the planner. At present, Geshiza speakers resort to using Chinese in written communication, because Written Chinese has gained a dominant position due to education policies since the establishment of the PRC. Among other Horpa language speaker communities where the knowledge of Tibetan is more prevalent, Written Tibetan is also used as a medium of communication. In creating a writing system for the Geshiza, the politically loaded question of the most suitable script consequently arises. For cultural reasons, adopting the Tibetan alphabet is likely to contribute towards easier acceptance of the writing system, in contrast to the Latin

alphabet that is perceived as culturally alien by the Geshiza, despite its use in Chinese Pinyin.

The issue, however, is both complicated and delicate. According to the Tibetan tradition sometimes seen as legendary by scholars, the Tibetan script was introduced by *thon mi sam+b+ho Ta*, mainly for the codification of Buddhist texts, with the result that the script itself together with the Classical Tibetan orthography have become sacrosanct and difficult to alter (Zeisler 2006: 4). Hence, the adoption of the Tibetan script for writing Geshiza may face considerable resistance from the local Bön and Tibetan Buddhist monastic communities without whose collaboration any orthographic project cannot succeed, at least without creating major discord in the communities. With the preceding as background, despite its problems, creating a writing system based on the largely culturally detached Latin alphabet could be seen as more neutral vis-à-vis adopting either the Tibetan or Chinese writing system charged with cultural connections in the region. In all, a wide gap exists between the idea of graphisation and its practical implementation, which makes the process an especially challenging endeavour among the Geshiza.

Second, linguists working in the region can contribute towards language maintenance through their outputs for the community. For instance, in a Tibetan speaking language community in Danba County, the creation of DVD recordings of traditional dances and folk songs inspired some of the community members to start performing these art forms again (see G.yu 'brug and Stuart 2012: 70). Since the gradual loss of domains of use epitomises the process of language endangerment, creation of materials that help in the maintenance of the language across several domains may consequently slow down the process of deepening endangerment. With the preceding as a background, creating multimedia outputs of the traditional Geshiza culture can consequently help in maintaining the language in vigorous use.

In addition, lexical planning can be used to develop the Geshiza language. At present, almost all new vocabulary entering the language comes from Chinese. Loanwords should not be feared, since they are a natural part of the evolution of a living language. Creating new lexical items from native elements, however, could foster pride in one's own language and shift language attitudes towards a more positive direction. Most lexical items in contemporary Geshiza are compounds. Using native elements through compounding would provide a powerful tool for enriching the lexicon.

Furthermore, seeing outsiders making an effort to speak Geshiza also increases linguistic awareness and pride among the speaker communities. People frequently record me speaking when I move around the region, regardless of whether I am aware of it or not (see also §1.3.3). Due to modern information technology, such videos spread virally in the communities through Weixin/WeChat, reaching potentially several hundreds of receivers in a matter of days and showing people that their language is worth learning by outsiders. In the same vein, even though the current sociolinguistic situation clearly indicates that most immigrant Chinese have no intention of learning conversational Geshiza, creating basic pedagogical tools, such as an application with audio for basic everyday phrases including greetings, would lower the

threshold of some Chinese immigrants in the Geshiza homeland to use the language at least in a very basic fashion in limited settings.

Finally, the present grammar can play a symbolic role in language revitalisation. By its mere existence, especially in a printed form associated with prestige, it signals that outsiders consider Geshiza a real and valuable language worth of extensive study and analysis like Chinese and Tibetan. Further revitalisation plans among the speaker communities, e.g. creation of pedagogical materials, depend to a large extent on their political acceptability and the feasibility of graphisation discussed above. Under favourable conditions, they would also positively add to the pool of language maintenance and revitalisation resources of Geshiza.

Figure 2.4. Danba County Town (autumn 2016)

Figure 2.5. Eastern Geshiza Valley with Geshiza River and Balang Village (autumn 2017)

Figure 2.6. Balang Village seen from the west (spring 2017)

Figure 2.7. Houses in Balang Village (spring 2017)

Figure 2.8. Stone tower in Dasang Village (autumn 2018)

Figure 2.9. Mantra stone in Geshiza River near Dandong (autumn 2017)

Figure 2.10. Trilingual sign in Balang Village (autumn 2017)

Figure 2.11. Wedding in Balang Village, bride and groom at the back-right (winter 2016)

Figure 2.12. Property piled up for *skræ* in Balang Village (winter 2016)

Figure 2.13. Harvesting wheat in Balang Village (summer 2018)

Figure 2.14. Cows roam freely in Balang Village during daytime (summer 2018)

Figure 2.15. *we-lməu,* the core room of a Geshiza house, in Balang Village (autumn 2017)

Figure 2.16. Village gate of Balang Village (winter 2015)

Figure 2.17. Traditional festive clothes of a lady, in Balang Village (summer 2018)

Figure 2.18. Traditional festive clothes of a man, on the way to Mosika (winter 2018)

Figure 2.19. A feast in Balang Village (summer 2018): The meal includes beer, butter-alcohol (*mær-tɕʰoŋ*), duck, pork, and a wide variety of vegetable dishes

Figure 2.20. *anæmdzo-wa-mtɕʰærten* stupa in Zhuosini Village (winter 2016)

Figure 2.21. *Anduo Yongzhong Deqing Ling* Bön monastery (winter 2018)

Figure 2.22. *Zhaxi Renqing Ling* Buddhist monastery in Buke Village (autumn 2018)

Figure 2.23. Circumambulating *Zhaxi Renqing Ling* in Buke Village (winter 2016)

CHAPTER THREE
Phonology

This chapter introduces Geshiza phonology. The language possesses a complex phonological structure, especially in the case of consonants that appear in two- and three-member clusters word-initially. In addition to a typologically large consonant inventory of 37 full and 2 marginal phonemes, the vowel system of Geshiza with 8 phonemic monophthongs has far more units than that the typological average. The vowels lack phonemic length, but they can undergo r-colouring (rhotacisation). Geshiza has diphthongs, and adjacent vowels frequently undergo fusion to avoid hiatus. Unlike in many languages of the Ethnic Corridor of Sichuan, contrastive tone is not absent in Geshiza. In general, major aspects in the phonological structure of Geshiza resemble those of the other partially known Horpa lects, such as Stau (Vanderveen 2015) and Nyagrong Minyag (Van Way 2018).

Phonological systems may exhibit inter-generational variation and this is the case in Geshiza as well. The phonological description presented here is based on a rather conservative phonological system, but deviations from this, such as consonant cluster simplification, are also discussed. In all, the phonology of Geshiza presented here will likely be simplified in the future, but the scale of such simplification remains unclear. Also, increasing contact with Chinese in the form of both Mandarin Chinese and local Sichuanese Mandarin is influencing the phonology of the language, especially among the younger generations. Consequently, this chapter also adds remarks to the phonological description of the conservative system whenever this is relevant to the discussion.

The chapter commences with an introduction of Geshiza consonant inventory (§3.1), followed by a description of the vowel system (§3.2). Subsequent discussion concerns the syllable structure and phonotaxis (§3.3); phonological processes (§3.4); variation (§3.5); and suprasegmental features, laying focus on stress and intonation (§3.6). A summary of the central findings is offered at the end of the chapter (§3.7).

3.1. Consonant inventory

Geshiza has 37 full and two marginal consonant phonemes due to language contact with Chinese, all phonemes listed in Table 3.1 on the following page. Based on their manner of articulation, Geshiza consonants are grouped into plosives (§3.1.1); affricates (§3.1.2); fricatives (§3.1.3); nasals (§3.1.4); and approximants (§3.1.5).

Table 3.1. Consonant inventory of Geshiza, marginal consonants inside parenthesis

Type	Bilabial	Labio-dental	Dental-alveolar	Alveolo-palatal	Retroflex	Palatal	Velar	Uvular
Plosives	*p*		*t*				*k*	*q*
	p^h		*t^h*				*k^h*	*q^h*
	b		*d*				*g*	
Affricates			*ts*	*tɕ*	*tʂ ~ ʈ*			
			ts^h	*tɕ^h*	*tʂ^h ~ ʈ^h*			
			dz	*dʑ*	*dʐ ~ ɖ*			
Fricatives		*(f)*	*s*	*ɕ*	*(ʂ)*		*x*	
			s^h	*ɕ^h*				
		v	*z*	*ʑ*			*ɣ*	
Nasals	*m*		*n*			*ɲ*	*ŋ*	
Approx.	*w*		*l*		*r*	*j*		

The consonants form a system with eight places (bilabial, labiodental, dental-alveolar, alveolo-palatal, retroflex, palatal, velar, uvular) and five manners (plosive, affricate, fricative, nasal, approximant) of articulation. Most of the plosives, affricates and fricatives appear in tripartite groups divided into voiceless unaspirated, voiceless aspirated, and voiced members. Geshiza thus exhibits a typologically unusual phenomenon of aspirated fricatives.

The two elements *f* and *ʂ* have a marginal status as phonemes due to their distributional properties and occurrence in the Chinese loanwords. For the purposes of this grammatical description, I define, marginal phoneme as a phoneme with strict distributional restrictions and predominantly present in loanwords. They will consequently be subjected for further analysis in this chapter. Finally, reasons as to why the frequent prenasalised consonants have been interpreted as consonant clusters and not as independent phonemes of their own right are discussed in §3.3.3.1.

Frequency analysis

Figure 3.1 and Table 3.2 on the following pages illustrate the frequency of the Geshiza core phonemes in a representative sample of the lexicon comprising 1800 lexical items across the word classes. The two marginal phonemes are excluded due to the demarcation problem of borrowing versus code switching in Geshiza (see §14.3.2). In total, the sample contains 4376 consonant phonemes. Matching the auditory impression, /r/ with 520 instances (11.9%) by far dominates in frequency. Other approximants, the nasals except /ɲ/, non-uvular plosives, and non-aspirated fricatives except /ɕ, x/ also show high frequencies. In contrast, the affricates, especially the retroflexes /tʂ ~ ʈ, tʂ^h ~ ʈ^h, dʐ ~ ɖ/, the uvular plosives /q, q^h/, aspirated fricatives /s^h, ɕ^h/, and the uvular fricative /x/ appear with relatively low frequencies.

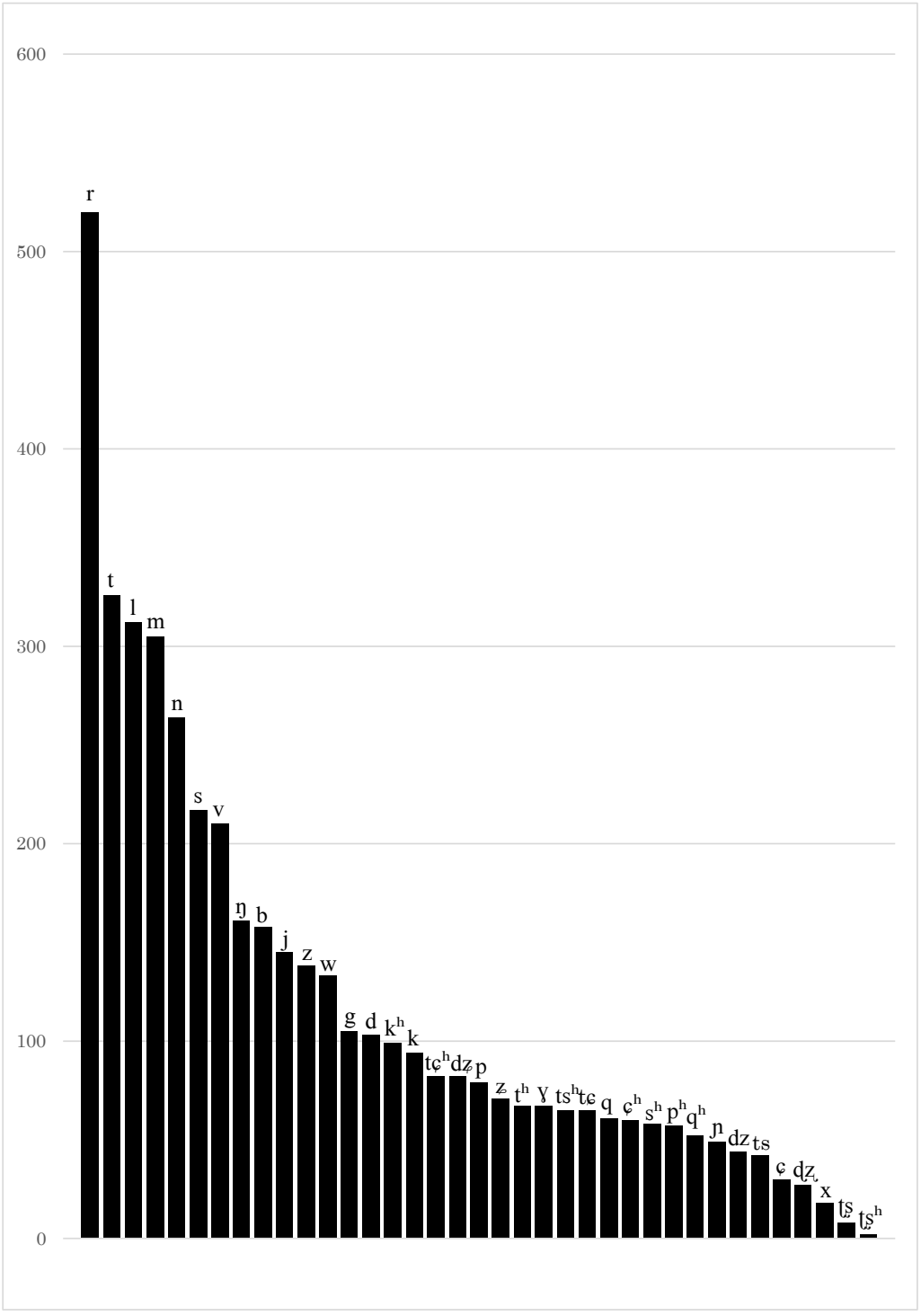


Figure 3.1. Frequency of the Geshiza core consonant phonemes (sample size 1800 lexical items with total 4376 consonant phoneme tokens)

Table 3.2. Relative frequency of the Geshiza core consonant phonemes

Phoneme	# of tokens	Frequency	Phoneme	# of tokens	Frequency
/r/	520	11.9%	/ʐ/	71	1.6%
/t/	326	7.4%	/tʰ/	67	1.5%
/l/	312	7.1%	/ɣ/	67	1.5%
/m/	305	7.0%	/tsʰ/	65	1.5%
/n/	264	6.0%	/tɕ/	65	1.5%
/s/	217	5.0%	/q/	61	1.4%
/v/	210	4.8%	/ɕʰ/	60	1.4%
/ŋ/	161	3.7%	/sʰ/	58	1.3%
/b/	158	3.6%	/pʰ/	57	1.3%
/j/	145	3.3%	/qʰ/	52	1.2%
/z/	138	3.2%	/ɲ/	49	1.1%
/w/	133	3.0%	/dz/	44	1.1%
/g/	105	2.4%	/ts/	42	1.0%
/d/	103	2.4%	/ɕ/	30	0.7%
/kʰ/	99	2.2%	/dʑ/	27	0.6%
/k/	94	2.1%	/x/	18	0.4%
/tɕʰ/	82	1.9%	/tʂ/	8	0.2%
/dʐ/	82	1.9%	/tʂʰ/	2	0.0%
/p/	79	1.8%	Total	4376	100%

3.1.1. Plosives

The Geshiza stop inventory with 11 phonemically distinct elements forms a consonantal subsystem of bilabial, dental-alveolar, velar, and uvular places of articulation: /p, pʰ, b, t, tʰ, d, k, kʰ, g, q, qʰ/, illustrated with examples in Table 3.3. on the following page. A three-way distinction is made between voiceless unaspirated, voiceless aspirated and voiced unaspirated stops, yet the functional load for voicing in non-clustered environments is light. The uvulars lack a corresponding voiced uvular plosive /ɢ/ that is occasionally mentioned in Horpa research. For instance, Vanderveen (2015: 41) reports /ɢ/ as a doubtful phoneme in Stau. Consequently, the lack of a phonemic voiced uvular plosive creates the only asymmetry in the tripartite plosive system of Geshiza. The series of three palatal plosives /c, cʰ, ɟ/ retained in Western Geshiza and reconstructed for Proto-Geshiza is lacking in Eastern Geshiza.

Table 3.3. Plosive phonemes in Geshiza

Phoneme	Definition	Example	Gloss
/p/	voiceless unaspirated bilabial plosive	*pær~pær*	flat
/p^h/	voiceless aspirated bilabial plosive	*p^{h}ɔ*	salary
/b/	voiced bilabial plosive	*bæ*	Tibetan
/t/	voiceless unaspirated dental-alveolar plosive	*tə*	to dance
/t^h/	voiceless aspirated dental-alveolar plosive	*t^{h}ævæ*	now
/d/	voiced dental-alveolar plosive	*dəva*	cigarzettes
/k/	voiceless unaspirated velar plosive	*kəta*	dog
/k^h/	voiceless aspirated velar plosive	*k^{h}o*	owl
/g/	voiced velar plosive	*gə*	to wear (INF)
/q/	voiceless unaspirated uvular plosive	*qa*	mountain
/q^h/	voiceless aspirated uvular plosive	*q^{h}æs^{h}i*	tomorrow

Minimal pairs

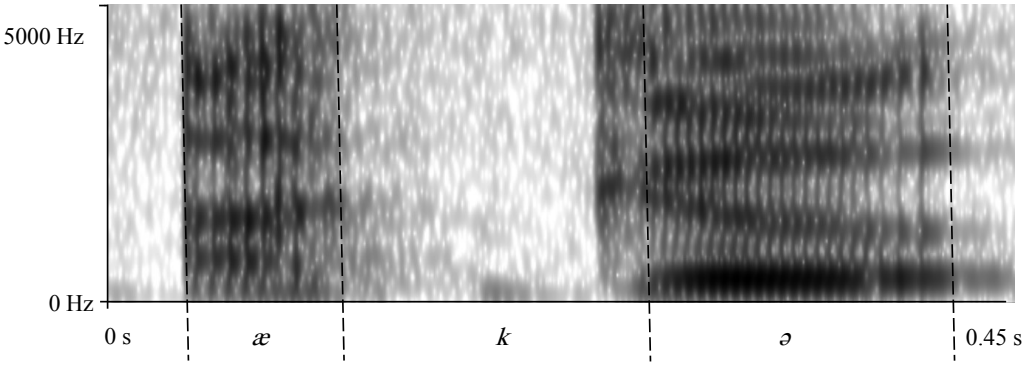
Table 3.4. on the following page lists minimal pairs for Geshiza plosives. In addition to aspirational contrast illustrated, the voiceless voiced and plosives also contrast in Geshiza. This contrast is most prominent in clustered environments, but also appears in non-clustered environments as well. For instance, the reduplicated adjectives *pær~pær* 'flat' and *bær~bær* 'low' differ in their voicedness, forming a minimal pair. Such examples, however, are relatively rare in Geshiza. The contrast of a voiced and voiceless plosive is most clearly visible in intervocalic environments, illustrated in Figure 3.4. on the following page, in which [k] of *æ-kə* 'paternal uncle' lacks a voicing bar visible in [g] of *æ-gə* 'classifier for letters and symbols of a writing system' in the spectrogram. It should be noted that segmental divisions in spectrogram figures of this chapter are intended as mere approximations to help the reader locate the points of interest. In phonetic analysis, division of naturally continuous sound into distinct segments often presents major challenges of interpretation.

In addition, stem alternation (see §4.3.5.3) that in a subset of verbs leads to the existence of two phonologically distinct verbs stems provides further evidence for distinguishing voiceless and voiced plosives. When the verb stem consonant is a voiced plosive, the verb only includes one stem with no past and non-past distinctions: ***bjola***-*ræ* 'It flies', *dæ*-***bjola***-*s^{h}i* 'It flew'. In contrast, with a voiceless plosive, the verb has both a past and non-past stem, one of which is aspirated: *v*-***t^{h}i***-*ræ* S/he/it drinks', *dæ*-*v*-***ti***-*s^{h}i* 'S/he/it drank'. Since the non-past stem can never appear alone without verbal prefixes in actual speech, strictly speaking, such examples only qualify for near minimal pairs.

Table 3.4. Attested minimal pairs for plosives

Contrast	Word 1	Gloss	Word 2	Gloss
/p/ vs. /pʰ/	*pi*	pen	*pʰi*	interjection
/p/ vs. /b/	*pær~pær*	flat	*bær~bær*	low
/t/ vs. /tʰ/	*tɔ*	to be accurate (NPST)	*tʰɔ*	lightning bolt
/t/ vs. /d/	*tɔ*	to be accurate (NPST)	*dɔ*	to be clear (speech)
/k/ vs. /kʰ/	*kʰo*	I give (NPST)	*-ko*	I gave (PST)
/k/ vs. /g/	*koko*	elder brother	*gogo*	sharing
/q/ vs. /qʰ/	*-qi*	rain heavily (PST)	*qʰi*	rain heavily (NPST)

(a) unvoiced unaspirated plosive [k] in *æ-kə* 'uncle'



(b) voiced plosive [g] in *æ-gə* 'classifier for letters and symbols of a writing system'

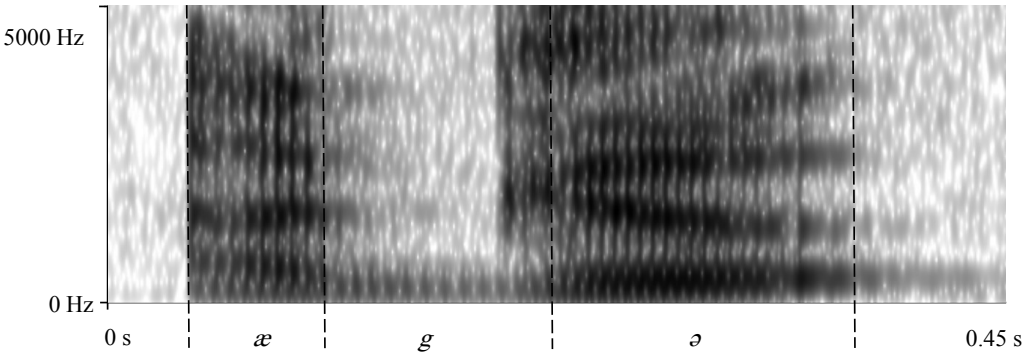


Figure 3.2. voicing contrast in Geshiza plosives /k/ (a) versus /g/ (b)

Chinese loanwords containing plosives lack the voicing contrast and are transcribed with their default pronunciation that is usually a non-voiced plosive: e.g. *pænfa* 'way, method' < Ch. *bànfǎ* [pænfa] (办法) 'way, method'. Voiced plosives nevertheless also occur in Chinese loanwords, an issue discussed in more detail in §14.3.2.

3.1.2. Affricates

In dental-alveolar, alveolo-palatal, and retroflex series, Geshiza possesses nine affricates that distinguish aspiration and voicing, forming a tripartite subsystem similar to the Geshiza stops: /ts, ts^{h}, dz, tɕ, tɕ^{h}, dʑ, tʂ, tʂ^{h}, dʐ/, illustrated with examples in table 3.5. below:

Table 3.5. Affricate phonemes in Geshiza

Phoneme	Definition	Example	Gloss
/ts/	voiceless unaspirated dental-alveolar l affricate	*tsələ*	cat
/ts^{h}/	voiceles aspirated dental-alveolar affricate	*ts^{h}æ*	goat
/dz/	voiced dental-alveolar affricate	*dzo*	road
/tɕ/	voiceless unaspirated alveolo-palatal affricate	*tɕæ*	bridge
/tɕ^{h}/	voiceless aspirated alveolo-palatal affricate	*tɕ^{h}əri*	bone
/dʑ/	voiced alveolo-palatal affricate	*dʑa*	tea
/tʂ ~ tʅ/	voiceless unaspirated retroflex affricate	*tʂuotsə*	table
/tʂ^{h}~ tʅ^{h}/	voiceless aspirated retroflex affricate	*tʂ^{h}etsə*	car
/dʐ ~ dʅ/	voiced retroflex affricate	*dʐi*	mule

Minimal pairs and allophones

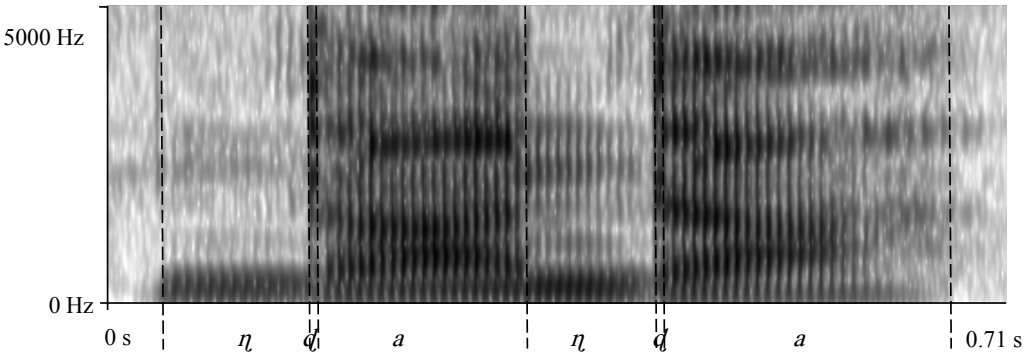
Table 3.6. on the following page lists minimal pairs for the Geshiza affricates. The retroflex affricates that mostly appear in Chinese loanwords and less frequently in the nativised lexicon, many cases of which are Tibetan loanwords: *tʂ^{h}etsə* 'car' < Ch. *chēzi* [tʂ^{h}ətsɨ] 车子 'car', *dʐæn* 'to remember, miss' < Tib. *dran* 'to remember, miss'.

As illustrated in Figure 3.3 on the following page, Geshiza retroflex affricates are frequently reduced to plosives with weak or absent following fricative element: *tʂ ~ tʅ, tʂ^{h} ~ t^{h}, dʐ ~ d*. The two manners of pronunciation stand in allophonic relation with each other and their occurrence is not conditioned on phonological factors: *dʐi* [dʐi] ~ [di] 'mule'. In addition, a cluster-like release [dɾ] is occasionally heard in addition to [dʐ ~dʅ] in Tibetan loanwords that originally included a *dr* initial cluster. Yet, neither does this realisation ever lead into phonological contrast. In the present work, the affricate allophones have been chosen as the representative transcriptional form based on comparative Horpa data. A larger sociological study in Geshiza Valley is required to explore whether the allophonic pronunciations show e.g. geographically triggered distribution.

Table 3.6. Attested minimal pairs for affricates

Contrast	Word 1	Gloss	Word 2	Gloss
/ts/ vs. /ts^{h}/	*tsə*	to rot (NPST)	*ts^{h}ə*	salt
/ts/ vs. /tɕ/	*tsa*	to drop (NPST)	*(dæ-)**tɕa***	to be able (PST)
/ts^{h}/ vs. /tɕ/	*ts^{h}æ*	goat	*tɕæ*	road
/ts^{h}/ vs. /tɕ^{h}/	*ts^{h}æ*	goat	*tɕ^{h}æ*	to be big
/ts^{h}/ vs. /s^{h}/	*ts^{h}æ*	goat	*s^{h}æ*	to die (NPST)
/tɕ/ vs. /tɕ^{h}/	*v-tɕi*	to ride (NPST)	*v-tɕ^{h}i*	to open (NPST)
/dz/ vs. /dʑ/	*dzi*	food	*dʑi*	existential verb
/dʑ/ vs. /tɕ/	*dʑa*	tea	*(dæ-)**tɕa***	to be able (PST)

(a) *ɳɖʐaɳɖʐa* [*ɳɖaɳɖa*] ‘same’



(b) *gæ-ɖʐɔ* [*gæ-ɖʐɔ*] ‘diligent, capable’

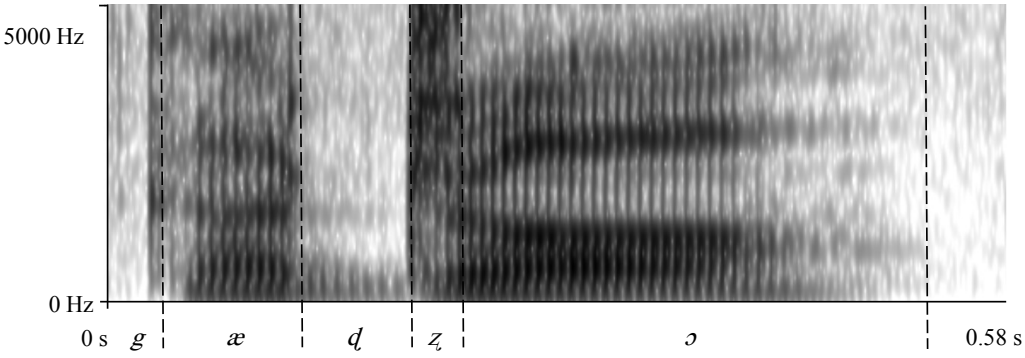


Figure 3.3. Realisation of /ɖʐ/ as [ɖ] in (a) and as [ɖʐ] in (b)

3.1.3. Fricatives

With nine full and two marginal phonemes, Geshiza is rich in fricatives: /(f), v, s, s^h, z, (ʂ), ɕ, $ɕ^h$, ʑ, x, ɣ/, illustrated with examples in Table 3.7 below. In addition to contrast of voicing, the language distinguishes between non-aspirated and aspirated alveolar and palatal fricatives. Such opposition is typologically very rare. Most aspirated fricatives have been reported from Asian languages, particularly from the Trans-Himalayan family, but also from other language families of the region. Consequently, as discussed in §1.5.3, their development constitutes an areal feature (Jacques 2011a: 1518).

Table 3.7. Fricative phonemes in Geshiza

Phoneme	Definition	Example	Gloss
/(f)/	voiceless labiodental fricative	*fuŋe*	side income
/v/	voiced labiodental fricative	*vo*	alcohol
/s/	voiceless unaspirated dental fricative	*səri*	rope
/s^h/	voiceless aspirated dental fricative	*s^həp^{h}o*	tree
/z/	voiced dental fricative	*zælvo*	sleeve
/(ʂ)/	voiceless retroflex fricative	*ʂəʈʂ^{h}an*	village square
/ɕ/	voiceless unaspirated alveolo-palatal fricative	*ɕɔvə*	paper
/$ɕ^h$/	voiceless aspirated alveolo-palatal fricative	*ɕ^{h}ə*	milk
/ʑ/	voiced alveolo-palatal fricative	*ʑa*	hand
/x/	voiceless velar fricative	*xazi*	how much/many
/ɣ/	voiced velar fricative	*ɣæ*	door

Marginal phonemes

The phoneme /f/ holds a marginal place in the Geshiza consonant inventory. In native words, [v] and [f] participate in complementary distribution and thus form two allophones of the underlying phoneme /v/. In native vocabulary, [v] occurs independently and in tandem with a voiced consonant in a cluster: *vo* [vo] 'alcohol', *vdo* [vdo] 'to see'. In contrast, [f] has a more limited distribution and only occurs in a consonant cluster together with unvoiced consonants: *v-təl* [ftəl] 'to subdue, vanquish (e.g. demons)', *vka* [fka] 'order'. Unlike [v], [f] never occurs independently as a non-clustered initial consonant in native Geshiza lexicon. Nevertheless, /f/ has acquired a marginal phonemic status in Geshiza through Chinese loanwords in which it cannot be replaced by /v/. This closely resembles the penetration of /f/ into the consonant paradigm of (at least some) Amdo Tibetan dialects (see Janhunen and Norbu 2014: 254). Relatively new Chinese loan words in Geshiza include items, such as *təfu* 'tofu' < *dòufu* 豆腐 'tofu' and *fæntɕ^{h}ue* 'tomato' < *fānqié* 番茄 'tomato'. Since voicing is not a distinctive feature in the native vocabulary with labiodentals, the relatively new phoneme /f/ must be considered marginal in Geshiza. The present work adopts a convention of writing *v* consistently for Geshiza

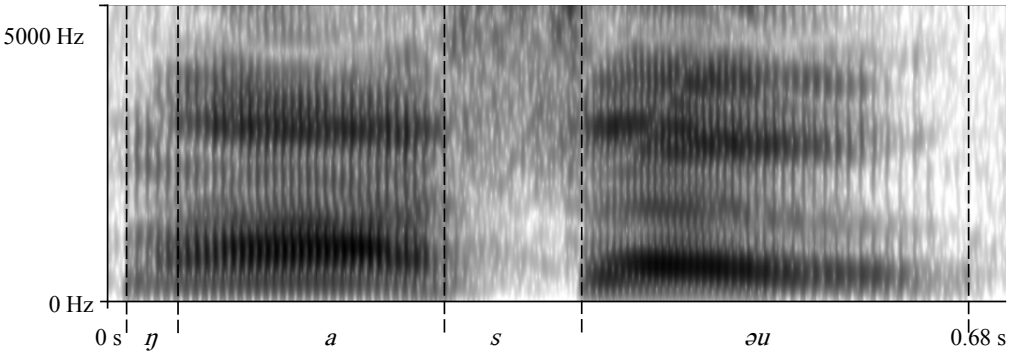
nativised vocabulary, while *f* is used consistently for Chinese loanwords.

The second marginal phoneme /ʂ/ only occurs in Chinese loanwords, albeit not constantly. Some elderly speakers with a lower command of Chinese where the phoneme is present substitute it with /s/. Also, regardless of speakers, /s/ surfaces in many loanwords where Standard Mandarin has /ʂ/: e.g. *sənrə* 'birthday' < *shēngrì* 生日 'birthday'. In all, the phonemic status of /ʂ/ remains more marginal than that of /f/.

Aspiration and minimal pairs

Table 3.8. on the following page lists the attested minimal pairs for Geshiza fricatives. Duo'erji (1997) argues for phonemic aspiration contrasts for the retroflex and velar fricative pairs /ʂ/ and /ʂʰ/; /x/ and /xʰ/, transcribed as ʂ, ʂ', x and x', respectively in the original. Based on the analysis in the present work, such contrast does not exist, at least in the variety under documentation. Only the phonemes /s/ and /sʰ/ together with /ɕ/ and /ɕʰ/ stand in phonological opposition, the four forming four distinct phonemes. Figure 3.4. containing a spectrogram illustrates the contrast between /s/ and /sʰ/ in the elicited forms *ŋa səu* 'I know' and *ŋa sʰəu* 'I kill':

(a) voiceless unaspirated alveolo-palatal fricative /s/ in *ŋa səu* 'I know'



(b) voiceless unaspirated alveolo-palatal fricative /ɕs/ in *ŋa sʰəu* 'I kill'

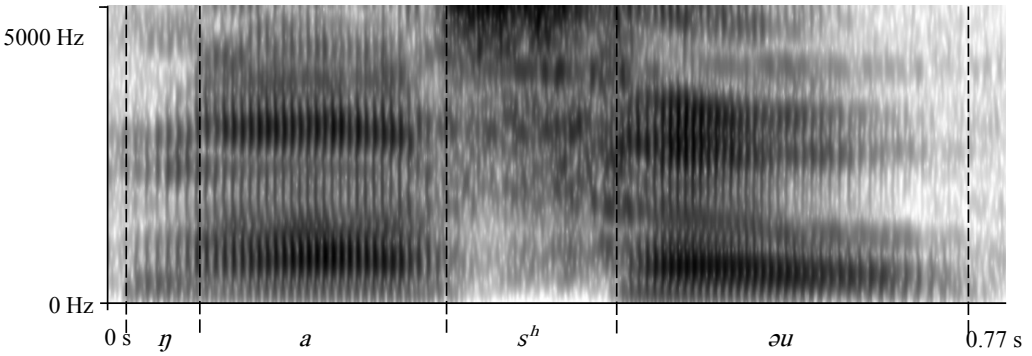


Figure 3.4. Aspiration contrast in the Geshiza fricatives /ɕ/ (a) and /ɕʰ/ (b)

In addition to the marginal phonemic status of /ʂʰ/, asymmetric lack of /ʂʰ/ and /xʰ/ in Geshiza likely arises from the fact that their contrasts with the unaspirated counterparts would be minimal, thus making it difficult to maintain such phonological contrast in the language for a long time. The author knows of no language with a phonemic distinction between an unaspirated and aspirated voiceless retroflex fricative: /ʂ/ versus /ʂʰ/. Nevertheless, languages surrounding the Geshiza homeland, such as a Kham dialect in Danba termed 'Twenty-four villages' patois' (Suzuki 2011) are reported to maintain a contrast between /x/ and /xʰ/. Jacques (2011a) states that the development of contrasting /x/ and /xʰ/ is generally avoided, even if a language develops aspiration contrast in other places of articulation. Two models can thus be proposed for Geshiza. Either the language originally maintained velar distinctions in aspiration that have simply eroded away in the history of the language. Alternatively, the language never had aspiratory distinctions in the velar place of articulation in the first place.

Table 3.8. Attested minimal pairs for fricatives

Contrast	Word 1	Gloss	Word 2	Gloss
/s/ vs. /sʰ/	*sæ*	to die (PST)	*sʰæ*	to die (NPST)
/s/ vs. /ts/	*-soŋ*	I/we died (PST)	*tsoŋ*	green onion
/z/ vs. /ʑ/	*zo*	*dzo mo*, female yak	*ʑo*	to be tasty
/z/ vs. /dz/	*=za*	question enclitic	*dza*	to fall
/ɕ/ vs. /ɕʰ/	*ɕə*	tooth	*ɕʰə*	milk
/ɕ/ vs. /tɕ/	*ɕi*	highland barley	*tɕi*	to ride (INF)
/ʑ/ vs. /dʑ/	*ʑa*	hand	*dʑa*	tea
/x/ vs. /ɣ/	*xo*	there	*ɣo*	to help

3.1.4. Nasals

Geshiza has four nasals /m, n, ɲ, ŋ/, illustrated in Table 3.9. below. Unlike in some other Trans-Himalayan languages, such as several Tibetic languages and Burmese, no unvoiced nasals appear in Geshiza.

Table 3.9. Nasal phonemes in Geshiza

Phoneme	Definition	Example	Gloss
/m/	voiced bilabial nasal	*mæ*	rain
/n/	voiced alveolar nasal	*nunu*	breasts
/ɲ/	voiced palatal nasal	*ɲi*	you
/ŋ/	voiced velar nasal	*ŋa*	I

Minimal pairs

Minimal pairs for Geshiza nasals are listed in Table 3.10 below. Justification is lacking for a phonemic interpretation of [ɳ] and [ɴ] that appear exclusively as homorganic nasals in consonant clusters: e.g. *ɳɖə-vʑa* 'year before the last' and *ɴqʰi~ɴqʰi* 'thin'. The distribution of [ɳ] is limited to the clusters *ɳʈʂ*, *ɳʈʂʰ*, and *ɳɖʐ* while [ɴ] occurs only in the clusters *ɴq* and *ɴqʰ*. Consequently, [ɳ] and [ɴ] are here excluded from the Geshiza phoneme inventory and better interpreted as manifestations of an archiphoneme *N-* (see §3.3.3.1).

Table 3.10. Attested minimal pairs for nasals

Contrast	Word 1	Gloss	Word 2	Gloss
/m/ vs. /b/	*mæ*	rain	*bæ*	Tibetan
/m/ vs. /n/	*me*	mole	*ne*	to rest
/n/ vs. /ɲ/	*noŋ*	in	*ɲoŋ*	ear
/ɲ/ vs. /ŋ/	*ɲi*	you	*ŋi*	to be good

3.1.5. Approximants

Geshiza has four marginal approximant phonemes: /*w, l, r, j*/, illustrated in Table 3.11, with minimal pairs in Table 3.12 below. The approximants play an important role in forming consonant clusters, discussed in §3.3.3.

Table 3.11. Approximant phonemes in Geshiza

Phoneme	Definition	Example	Gloss
/w/	voiced labio-velar approximant	*we*	house
/l/	voiced alveolar lateral approximant	*luɕʰə*	trousers
/r/	voiced retroflex approximant	*ri*	little brother
/j/	voiced palatal approximant	*jə*	to say

Table 3.12. Attested minimal pairs for approximants

Contrast	Word 1	Gloss	Word 2	Gloss
/w/ vs. /b/	*we*	house	*be*	also
/w/ vs. /v/	*wo*	bear	*vo*	alcohol
/w/ vs. /j/	*wi*	existential verb	*ji*	sheep
/l/ vs. /r/	*rɔ*	copper	*lɔ*	again
/r/ vs. /z/	*ra*	cliff	*=za*	question enclitic
/r/ vs. /ʐ/	*ra*	cliff	*ʐa*	hand
/j/ vs. /ɣ/	*jo*	house (rare)	*ɣo*	to help

Variation and allophones of /w/ and /j/

The approximants /w/ and /j/ show occasional free variation, a phenomenon which is also reported by Duo'erji (1997: 11). For instance, *jolva* 'mountainside/up medial location' can be pronounced as [jolva] and [wolva]. The approximants /w/ and /j/ stand in phonemic contrast outside a subset of the lexical items subject to free variation, illustrated by the minimal pair *jæl* 'to discolour, e.g. tree leaves', *wæl* 'to disperse, of colours'. The two approximants are thus phonemic in Geshiza.

When preceded by a voiced consonant, /j/ often occurs with light friction [j̬], as in *gæ-bji* [gæ-bj̬i] 'tall'. Preceded by an aspirated consonant, the allophone [ç] is occasionally heard. In such a context, the fricativised /j/ may approach even the quality of [ʃ], typically in an environment where /j/ is followed by the front vowel /i/: *k^{h}ji* [k^{h}ʃi] 'pigeon'. Also, /w/ can be occasionally heard pronounced with mild initial friction: [ɣw], as in *wəza* [ɣwəza] 'fly'. Both allophones are illustrated in spectrogram Figures 3.5 and 3.6 below:

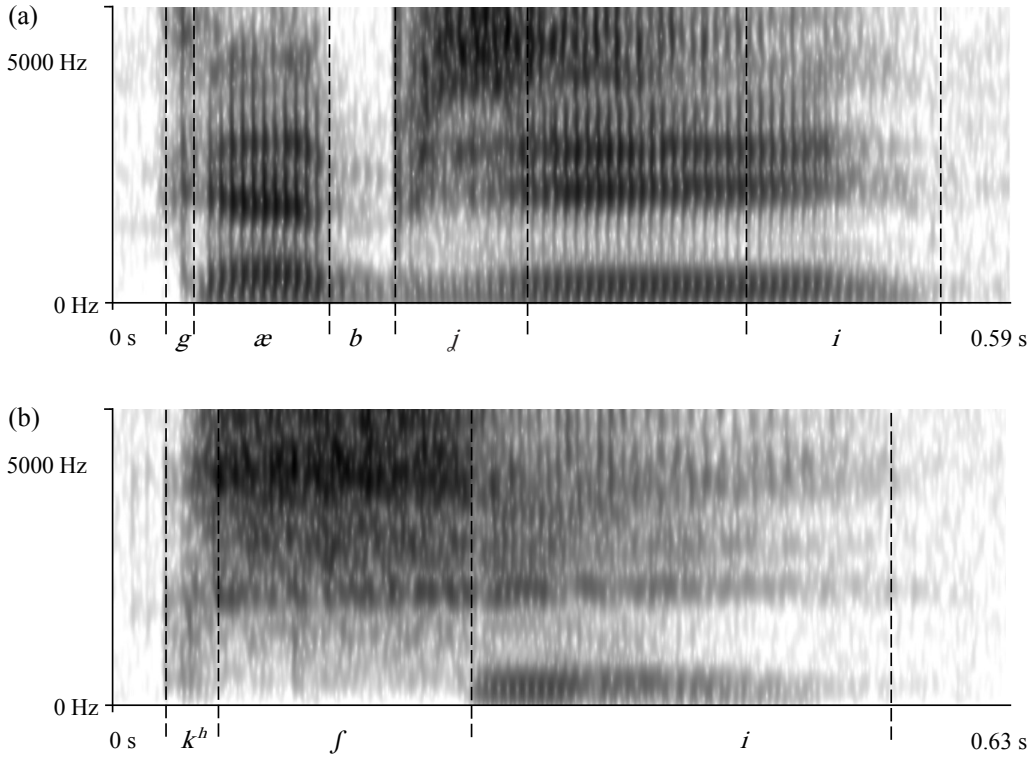


Figure 3.5. Fricativised /j/ in *gæ-bji* [gæ-bj̬i] 'tall' (a) and in *k^{h}ji* [k^{h}ʃi] 'pigeon'

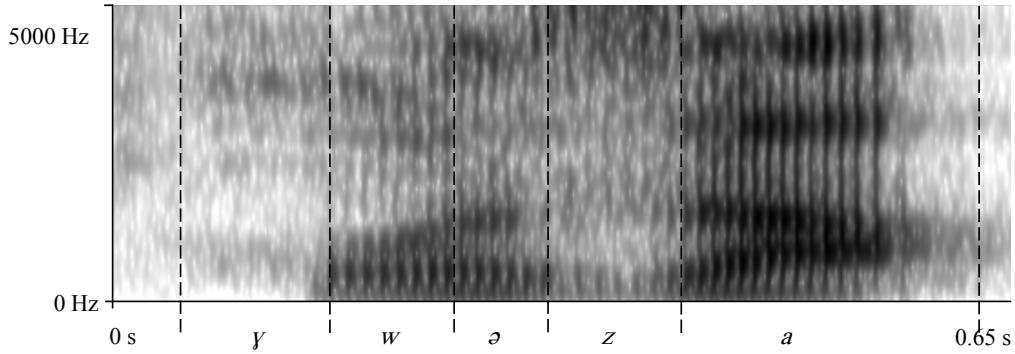


Figure 3.6. Weakly fricativised /w/ in the noun *wəza* [ɣwəza] 'fly, small flying insect'

The fricativisation reflects a Gyalrongic tendency called *Verschärfung* 'intensification' by Gong (2016b: 143). The term is coined after the fortition of glides in certain metrically strong positions in Germanic languages. The author describes the phenomenon as a gradual fortition of sonorants to stops or clusters containing stops. In Geshiza, *Verschärfung* also applies to the cluster *zl-* [zɮ] (see §3.3.3.2), but the fortition of the lateral has not resulted in a phonemic lateral fricative in the language. Alternatively, the case of /w/ being realised as [ɣw] can also be explained language-internally, since many instances of /w/ in Geshiza originate from /ɣ/: cf. Geshiza *wrə* 'water' vs. the more conservative Stau *ɣrə* 'water'. Duo'erji (1997: 13) proposes the following sound change in Geshiza to explain the phenomenon: *ɣ > ɣw ~ w > w. In any case, at least the realisations of /j/ with friction clearly qualify for *Verschärfung*.

Allophones of /r/

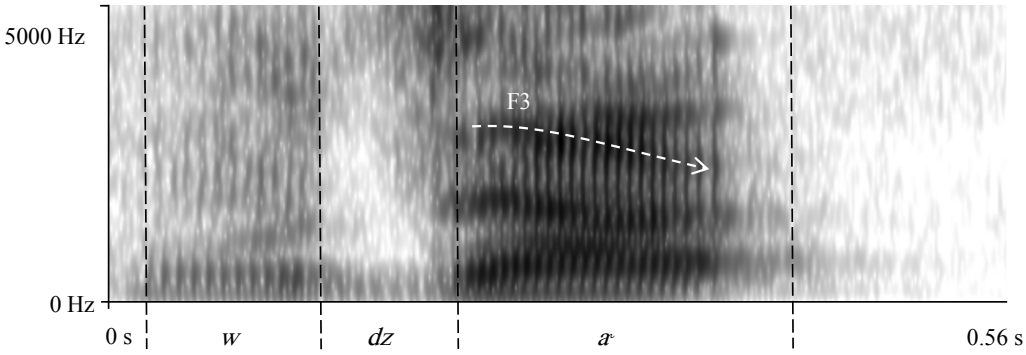
Geshiza has one rhotic phoneme /r/ with four major allophones, [r], [ɾ], [ʂ], and the r-colouring (rhotacisation) on the preceding vowel, illustrated in Figure 3.7 on the following page. *Grosso modo*, the allophones stand in complementary distribution, yet free variation is also observed. Rhotacisation occurs word- and syllable-finally when the rhotic directly follows a vowel: *zvær* [zvæ˞] 'to light' (see §3.5.3). It is characterised by lowering in the F3 formant. For instance, in Figure 3.7 (a), the F3 formant of *wdzar* [wdza˞] 'chopsticks' lowers down to approximately 2360 Hz while the average F3 formant for the vowel /a/ in non-rhotacised contexts is 2786 Hz.

The rhotic is realised as [r] as a consonant cluster preinitial (C_p): /rtsipa/ [rtsipa] 'diviner'. When occurring as the initial (C_i) in consonant clusters with the medial (C_m) *-j*, the allophone [r] is used: *rjəu* [rjəu] 'wife'. A multi-trill *r* with a large number of trills is also used for an aggressive function: such as *mærəu* '(You) uncouth/low class!' (overheard example). A similar mechanism is present in Japanese where the only liquid phoneme of the language is commonly realised as [ɾ], but a trilled allophone occurs in caricaturised 'Yakuza speech' to convey aggressiveness. The allophone [r] is also used when it stands as the medial (C_m) consonant in a cluster with a voiced preinitial (C_i): *bræ* 'to stop raining'.

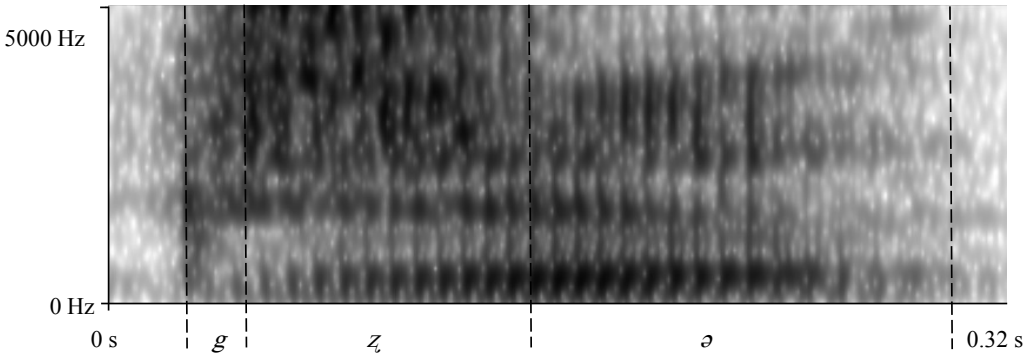
When occurring intervocalically or in a non-clustered environment at the beginning of a

word followed directly by a vowel, the rhotic occurs as [ʐ̻]; *rura* [ʐ̻uʐ̻a] ‘grass’. Nevertheless, the distribution or [r] and [ʐ̻] free variation that is hard to predict. Finally, the rhotic loses its voicing and is realised as [ʂ] when it appears as a medial (C_m) after a voiceless aspirated consonant: *pʰru~pʰru* [pʰʂu~pʰʂu] ‘white’.

(a) /r/ realised as rhotacisation in *wdzar* [wdzaɚ] ‘chopsticks’



(b) /r/ realised as [ʐ̻] in *grə* [gʐ̻ə] ‘boat’



(b) /r/ realised as [ʂ] in *kʰrə* [kʰʂə] ‘bed’

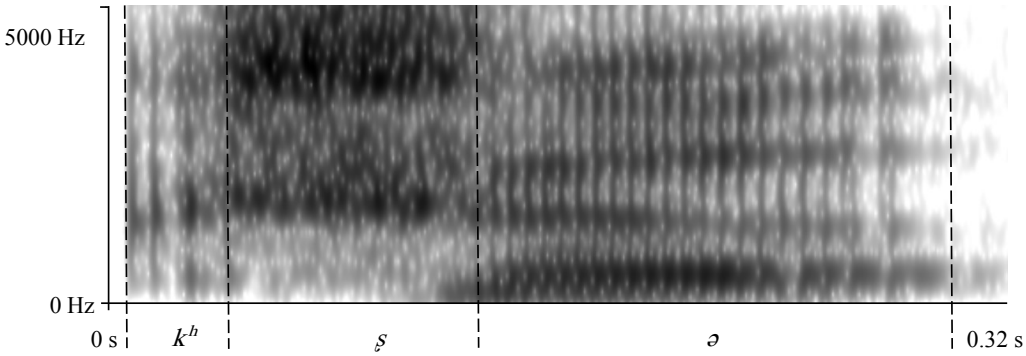


Figure 3.7. Major allophones of the Geshiza rhotic: rhotacisation (a); [ʐ̻] (b); [ʂ] (c)

3.2. Vowel inventory

This section describes the Geshiza vowel inventory, discussion being divided into monophthongs (§3.2.1); diphthongs (§3.2.2); and the issue of triphthongs (§3.2.3). Length is not a phonological feature in the Geshiza vowel system.

3.2.1. Monophthongs

Geshiza has eight full vowels: /i, e, æ, a, ɔ, o, u, ə/, illustrated in Figure 3.8. below and in the following Table 3.13 with minimal pairs and quasi minimal pairs. The vowels form a triangular system of four grades of aperture with one central vowel. In addition, the vowel system includes three marginal vowels: /y, ɨ, ɛ/ subject to distributional restrictions and lower frequency of occurrence.

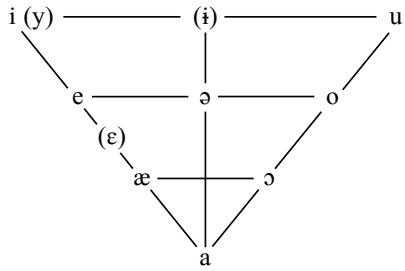


Figure 3.8. Vowel system of Geshiza[30]

Table 3.13. Core monophthong vowels in Geshiza

Phoneme	Definition	Example 1	Example 2
/i/	close front unrounded vowel	*sʰi* 'who.GEN'	*lji* 'to wait'
/e/	close-mid front unrounded vowel	*sʰe* 'blood'	*le* 'karma'
/æ/	open-mid front unrounded vowel	*sʰæ* 'to kill.INF'	*læ* 'lie'
/a/	open unrounded vowel	*tsa* 'to drop'	*lala* 'maternal aunt'
/ə/	mid-central unrounded vowel	*sʰə* 'who.ABS'	*lə* 'to boil'
/ɔ/	open-mid back rounded vowel	*tɕɔ* 'to be pleasant'	*lɔ* 'again'
/o/	close-mid back rounded vowel	*sʰo* 'more'	*lo* 'year'
/u/	close back rounded vowel	*sʰu* 'who.ERG'	*lu* 'Goat (zodiac sign)'

[30] As Figure 3.9 shows, placement of the schwa at the same level of openness with /e/ and /o/ is justified.

Average formants

Ladefoged (2003: 14-15) advices recording groups of speakers, ideally half a dozen of speakers per sex, for revealing reliably the true phonetic characteristics of a language. Aspiring towards Ladefoged's ideal, Figure 3.9 on the following page represents the average of the average values of 10 participants from both sexes in equal number, both born and currently living Balang Village. The participants were asked to pronounce 8 preselected lexemes per vowel (see Table 3.14 for consultant information). Due to various reasons, such as differences in peoples' idiolects, some preselected items were omitted by certain speakers, as indicated in the total token count in the table. All tokens of male and female speakers are offered in subsequent Figures 3.10 and 3.11, respectively. Separate figures are given for males and females due to acoustic differences between the two.

The recorded vowels were subsequently analysed with Praat by selecting the midpoint value of a level formant or the nearest point with relatively level formants when the former was not applicable. The formant maps were created with FPlot, a formant plotting software developed by Rod Casali at the Canada Institute of Linguistics (http://casali.canil.ca/). The IPA symbols in the figure have been manually amplified by the author to make them more visible. Nasal contexts have been eliminated, except when another consonant blocks the nasal influence, e.g. *ndzo* 'to sit'.

The average age of the recorded speakers, 46.8, exceeds the median age of China reported as 37.4. The following two factors explain this bias. First, only adults who are able to give their informed consent were recorded for the study (see also §1.3.3). Even if conditions for ethical recording of children had been established, many have an imperfect command of the language, especially in terms of the lexicon (see §2.9.4). Second, many young people are currently moving away from villages into regional centres, such as Chengdu, due to increased job opportunities in these places (see §2.5.1; §2.5.3). Taking these factors into account, the small sample of ten speakers represents the sociolinguistic situation the Geshiza villages are currently facing with moderate accuracy.

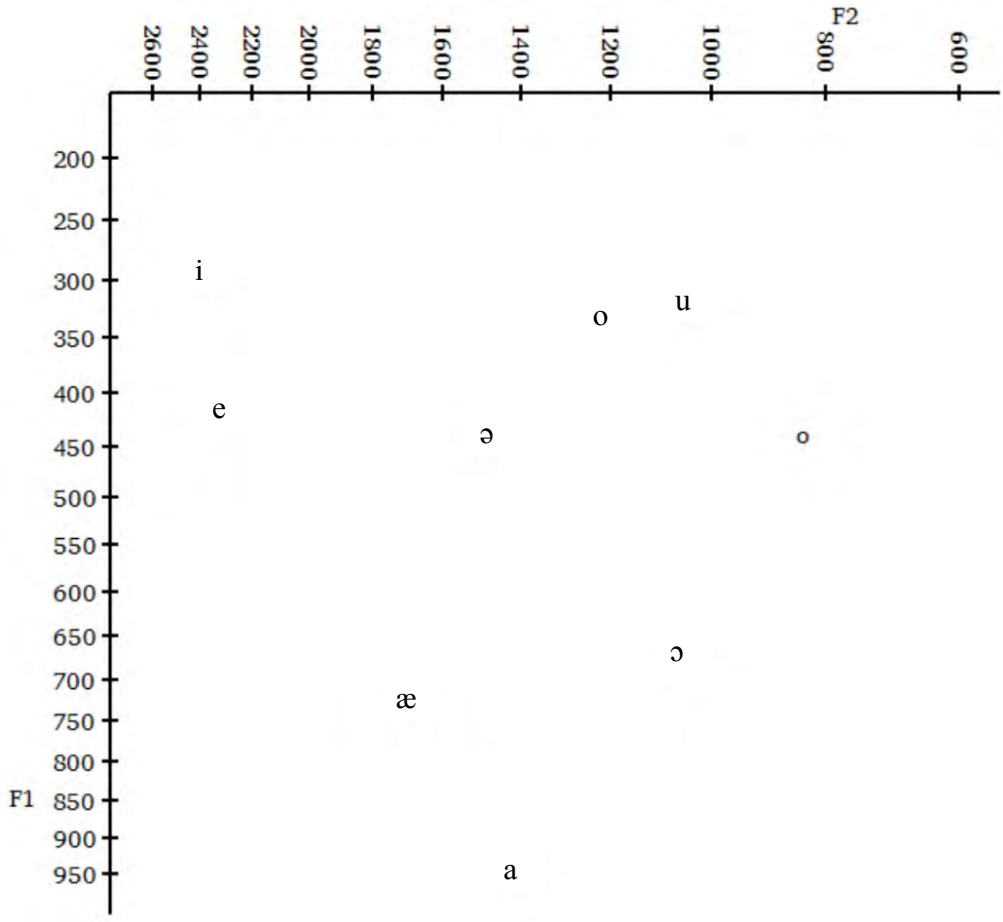


Figure 3.9. Geshiza average F1 and F2 formants based on 10 speakers

Table 3.14. Participant information for vowel formant analysis

ID number	Sex	Age	Number of tokens
1	male	36	60
2	male	37	61
3	male	44	60
4	male	59	63
5	male	71	63
6	female	37	61
7	female	38	59
8	female	44	55
9	female	45	56
10	female	57	61

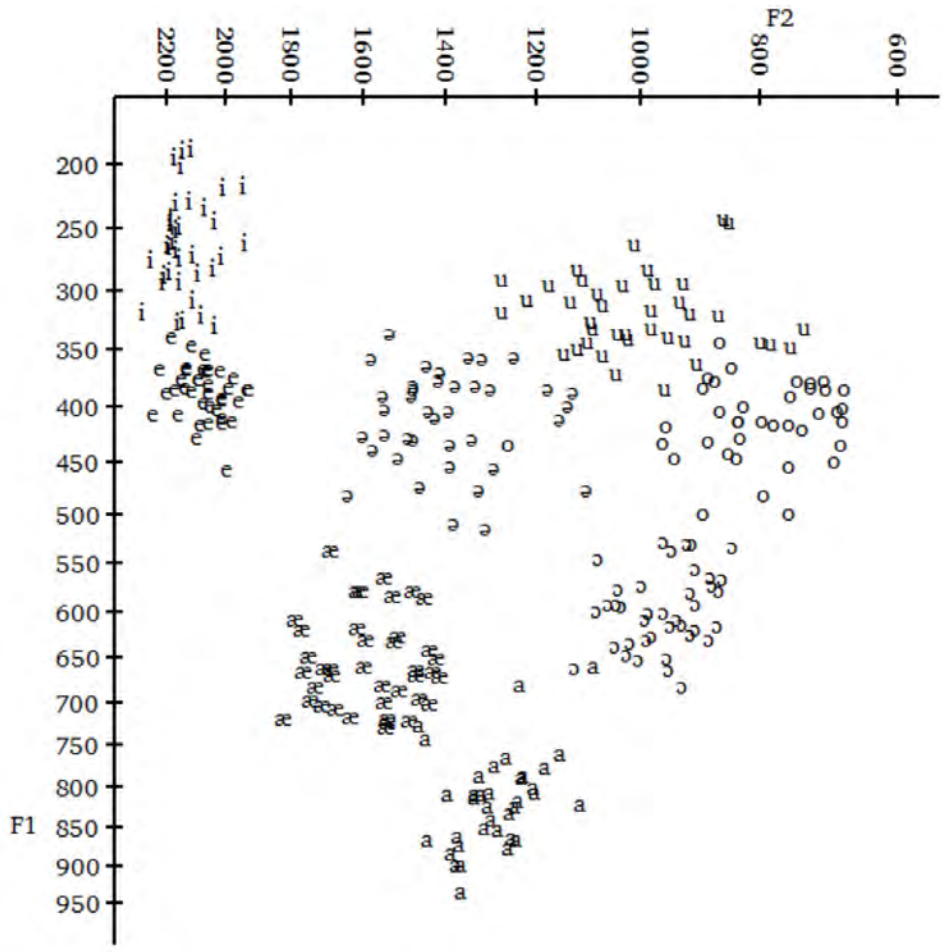


Figure 3.10. Geshiza average F1 and F2 formants of the core vowels (male speakers)

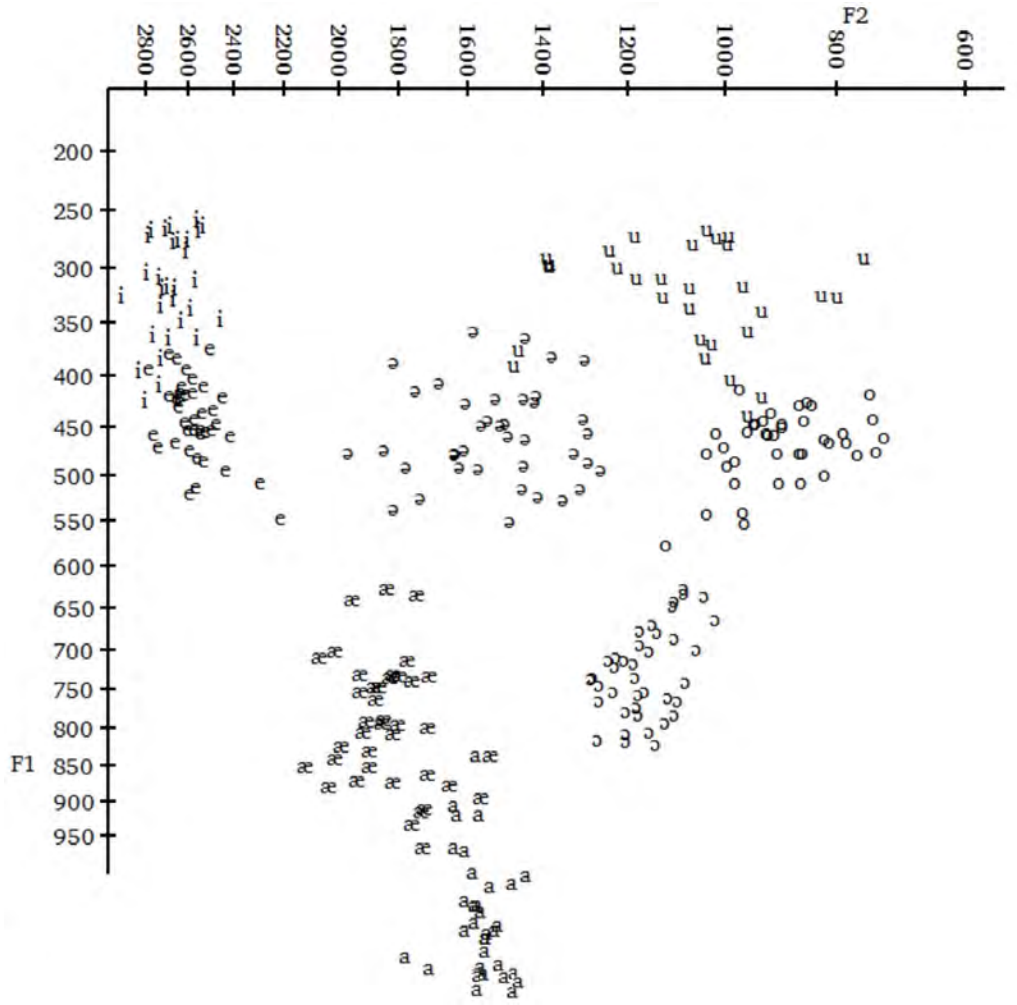


Figure 3.11. Geshiza average F1 and F2 formants of the core vowels (female speakers)

Finally, Tables 3.15 and 3.16 offer the collected exact numerical data concerning Geshiza vowel formants, as spoken in Balang Village:

Table 3.15. Averages of the participants' average F1 and F2 formant values

Vowel	Male participants		Female participants		All participants	
	F1	F2	F1	F2	F1	F2
i	262	2131	321	2678	292	2404
e	383	2074	440	2564	411	2317
æ	653	1585	792	1838	723	1711
a	813	1294	1077	1570	945	1432
ə	410	1396	464	1586	437	1491
ɔ	596	959	727	1163	662	1061
o	410	785	465	890	438	837
u	317	1003	327	1080	322	1041

Table 3.16. Average F1 and F2 formant values of all participants

V	F	ID number of the participant (see Table 3.14)									
		1	2	3	4	5	6	7	8	9	10
i	F1	262	270	218	293	266	297	281	290	341	398
	F2	2139	2117	2127	2133	2138	2592	2701	2725	2621	2750
e	F1	391	366	395	385	379	430	441	458	405	464
	F2	2140	2032	2027	2077	2076	2515	2563	2557	2656	2527
æ	F1	683	659	591	671	662	886	792	734	820	730
	F2	1706	1504	1514	1569	1631	1690	1857	1871	1973	1799
a	F1	829	840	776	813	806	1160	939	1074	1110	1102
	F2	1273	1388	1313	1264	1232	1533	1604	1584	1615	1513
ə	F1	432	378	408	418	411	469	455	478	438	480
	F2	1411	1368	1361	1403	1437	1507	1689	1555	1642	1538
ɔ	F1	627	569	571	606	606	773	709	717	773	664
	F2	919	1014	947	933	983	1141	1168	1215	1201	1088
o	F1	419	391	436	400	406	460	464	468	454	481
	F2	712	837	791	716	869	909	852	795	933	960
u	F1	328	341	290	325	300	283	307	301	374	371
	F2	999	980	926	1053	1056	1044	1056	1148	1208	942

Frequency analysis

Figure 3.12 below illustrates the relative frequencies of Geshiza vowels. It can be seen that /æ/ occurs by far most frequently in the language, while the back vowels /ɔ/ and /u/ are rare. The more exact numerical data on relative frequencies of the core vowels is shown in Table 3.17.

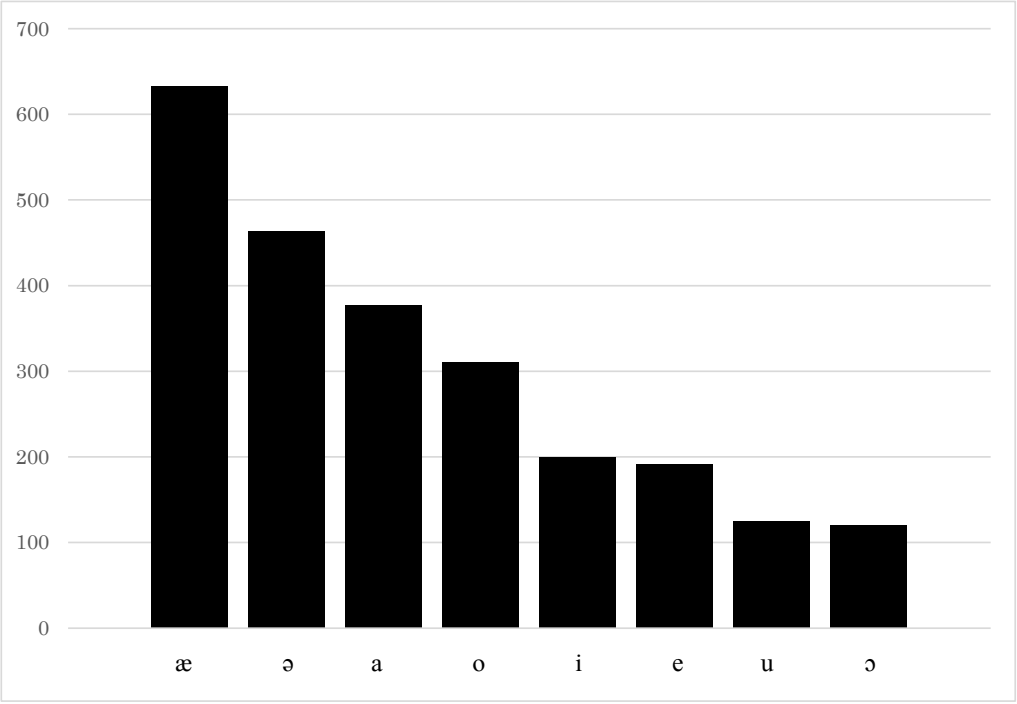
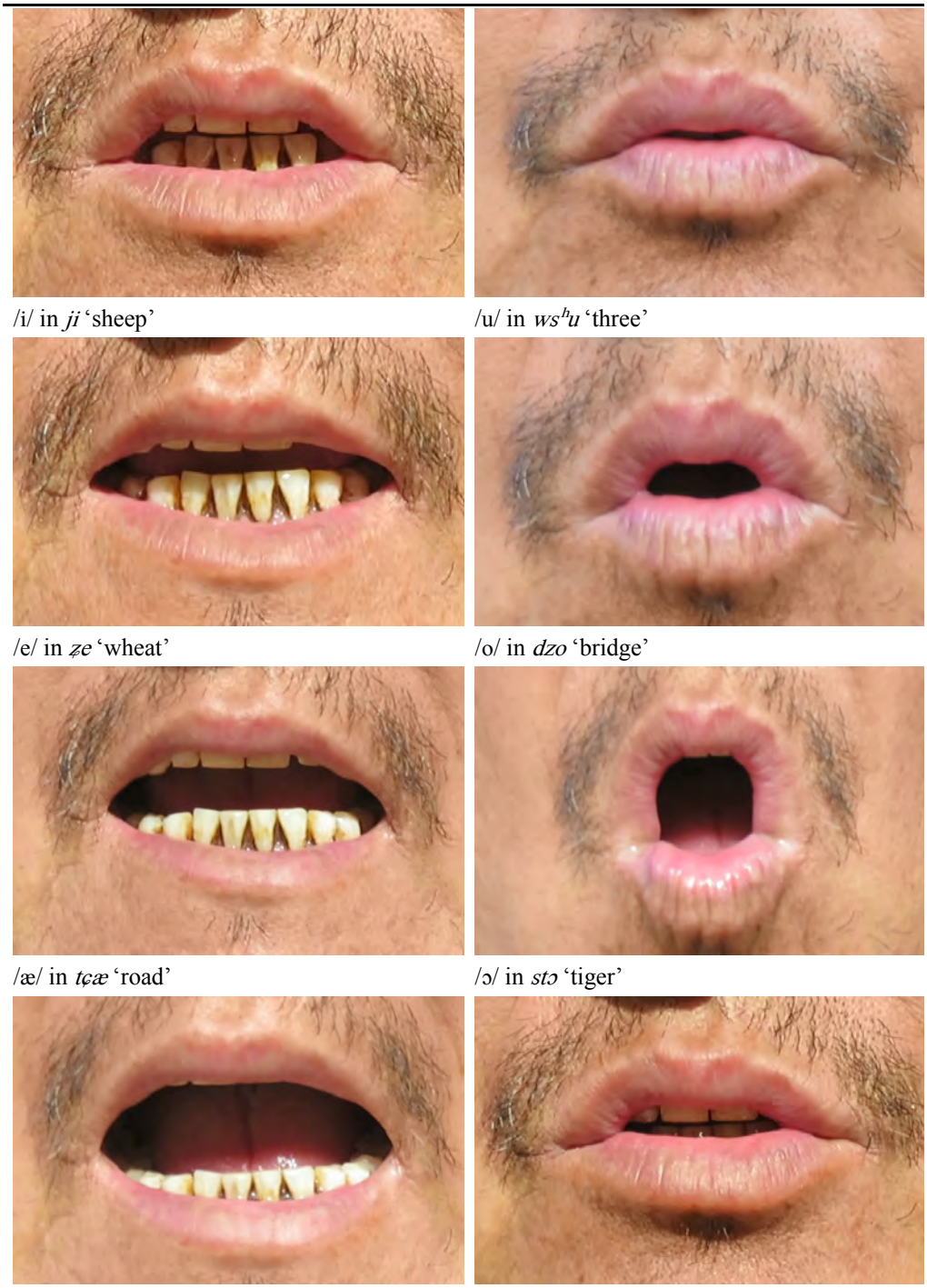


Figure 3.12. Frequencies of the eight basic vowels in monophthongs (sample size 1800 lexical items with 2420 monophthongs)

Table 3.17. Relative frequency of the Geshiza core vowel phonemes

Vowel	Number of tokens	Relative frequency
/æ/	633	26.2%
/ə/	463	19.1%
/a/	377	15.6%
/o/	310	12.8%
/i/	200	8.3%
/e/	192	7.9%
/u/	125	5.2%
/ɔ/	120	5.0%
Total	2420	100.1%

Lip positions



/i/ in *ji* 'sheep'

/u/ in *ws^{h}u* 'three'

/e/ in *ʑe* 'wheat'

/o/ in *dzo* 'bridge'

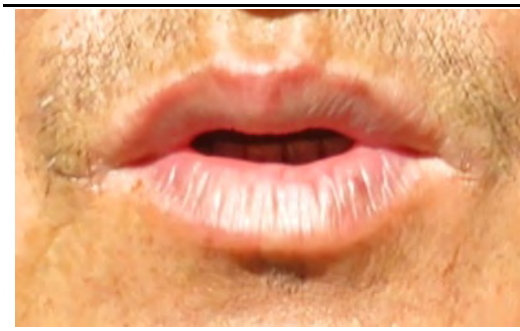
/æ/ in *tɕæ* 'road'

/ɔ/ in *stɔ* 'tiger'

/a/ in *ʑa* 'hand'

/ə/ in *ɕ^{h}ə* 'milk'

Figure 3.13. Lip positions in the phonemic vowels of Geshiza



/y/ in *xontɕyn* ‘Red Army’

/ɨ/ in *zdɨ* ‘I pile’

/ɛ/ in *mɛ-* ‘negative prefix’

Figure 3.14. Lip positions in the three marginal vowels of Geshiza

Figures 3.13 and 3.14. above illustrate the lip positions in Geshiza core and marginal vowels. The representative frames from a recorded video are selected to illustrate the highest points of aperture. The vowels present in a prepared list of everyday lexical items were articulated by A, a Geshiza male from Balang Village (see *Main consultants*, p. xlv). The images are intended to graphically illustrate the details of Geshiza vowels discussed subsequently.

Descriptions of the phonemic vowel phonemes

Open unrounded vowel /a/

Of all Geshiza vowels, /a/ has the widest aperture. Its degree of vowel backness is characterised as central. The allophone [ɑ] with a lower F2 frequency appears in conjunction with velar consonants: /qa/ [qɑ] ‘mountain’. The auditory perception of the vowel /æ/ is close to the vowel /a/, but the two vowels are exhibit distinct formant distributions and should be considered separate. Minimal pair contrasts between /a/ and /æ/ include *mæ* ‘sky, rain’, *ma* ‘negative existential verb’; *qa-va* (mountain-pig) ‘wild boar’, *qa-væ* (mountain-person) ‘mountain dweller, inhabitant of Xishua Village complex’.

Open-mid front unrounded vowel /æ/

From the viewpoint of vowel system symmetry, the vowel /æ/ occurs as the front pair of the back vowel /ɔ/. Of all vowels in Geshiza, /æ/ has the highest occurring frequency. For instance, bisyllabic words frequently include in the first syllable in the pattern CæCV. Due to its openness and close auditory impression to /a/, the symbol /æ/ is used for the vowel in the present work. The symbol ɛ is used for the marginal vowel /ɛ/ mainly present in many Chinese loanwords and discussed below, The vowels /æ/ and /e/ stand in phonemic contrast: *lmæ* '3SG.ABS personal pronoun', *lme* '3SG.GEN personal pronoun'; *mæ* 'sky, rain', *me* 'mole (on the body)'.

Open-mid back rounded vowel /ɔ/

Of all Geshiza vowels, /ɔ/ is pronounced with most rounding. The vowel is phonemic and contrasts with /o/, as in *lɔ* 'again' and *lo* 'year'. Of all vowels, it has the lowest frequency. In addition to Tibetan loanwords, it appears in few native lexical items, such as *bɔ* 'like'. Based on the following observations, the vowel /ɔ/ may be a relative newcomer in Geshiza language with two historical sources. First, Tibetan loanwords can be identified as a significant source of the vowel /ɔ/. Tibetan words with the finals *-ag(s)* and *-og(s)* in Written Tibetan appear with the final vowel *-ɔ* in Geshiza, illustrated in Table 3.18 below.

One exception in the source materials needs further explanation. The Geshiza toponym *braŋgu* 'Danba (County Town)' has been borrowed from the Tibetan *brag mgo*. Because of nasal assimilation, the first syllable fails to be realised as the expected **brɔ*. Also, not all final stops present in Written Tibetan result in post-borrowing *ɔ* in Geshiza. The Written Tibetan coda *-ug(s)*, appears as *-u:* Tib. *lug* 'goat' > Ge. *lu* 'Goat in the Tibetan zodiac'. Finally, it should be noted that the present analysis takes no position regarding the actual dialectal source of the Tibetan loanwords present in Geshiza. Merely, since Written Tibetan has an extensive history as a written source of the Tibetan language, it has been used here as an initial reference point in addressing the issue.

Table 3.18. Tibetan *-ag(s)* and *-og(s)*, Geshiza /ɔ/

Tibetan coda	Written Tibetan	WT gloss	Geshiza	Geshiza gloss
-ag(s)	*dmag mi*	soldier	*a̱mɔmə*	soldier
	g.yag	yak	*a̱jɔ*	yak
	shing nags	forest	*sʰənɔ*	forest
	stag	tiger	*stɔ*	tiger
-og(s)	*grog*	ant	*grɔgrɔ*	spider
	mdog	colour	*mdɔ*	colour
	metog	flower	*mətɔ*	flower
	shing tog	fruit	*ɕʰantɔ*	fruit
	shog bu	paper	*ɕɔvə*	paper

The vowel /ɔ/ also emerges language-internally, deriving historically from *Vɣ and *Vx via *Vw in a monophthongisation process, illustrated in (3.1). The process is likely the same that has shaped the Tibetan loanwords discussed above. Postulating such a process explains why verbal orientational prefixes (see §8.2) in Geshiza with either or /æ/ or /ə/ vocalisation in the indicative occasionally appear with /ɔ/ instead (see §3.4.4). The emergence of the vowel /ɔ/ due to historical monophthongisation occurs regardless of morpheme boundaries. The vowel appears in verbal prefixes with verb roots that historically included the initial velar consonants *x* and *ɣ*. In modern Geshiza, the diphthong *æw/æu* is absent, except in ideophones (see §4.11).

(3.1) *gæ-ɣrə-s^{h}i > *gæ-wrə-s^{h}i > *gɔ-rə-s^{h}i*
IPFV-bark-IFR IPFV-bark-IFR IPFV-bark-IFR
The dog barked.

*dæ-xɕ^{h}ə-s^{h}i > *dæ-wɕ^{h}ə-s^{h}i > *dɔ-ɕ^{h}ə-s^{h}i*
PFV-break.PST.3-IFR PFV-break.PST.3-IFR PFV-break.PST.3-IFR
S/he/it/they broke (it).

To explain most parsimoniously the existence of /ɔ/ in both Tibetan loanwords and native lexicon, it is to be assumed that Tibetan loanwords containing the vowel /ɔ/ entered Geshiza lexicon prior to the phonological change that resulted in emergence of /ɔ/ from non-monophthong sequences.

Close-mid front unrounded vowel /e/

Among the vowels, /e/ has a compact formant distribution. The vowel is relatively rare in Geshiza, except in second person forms of transitive verbs where it occurs due to vowel fusion. It contrasts both with /i/ and /æ/: *s^{h}i* 'tree, wood' *s^{h}e* 'blood'; *tɕe* 'hat', *tɕæ* 'road'.

Close-mid back rounded vowel /o/

The vowel /o/ occurs both in native words and loanwords. It contrasts both with /ɔ/ and /u/: *lɔ* 'again', *lo* 'year'; *ʑo* 'tasty', *ʑu* 'to be clear (sky)'. Chinese loanwords with diphthongs present in Standard Mandarin, such *u̯o,* are often monophthongised into /o/: *píngguǒ* [p^{h}iŋku̯o] 苹果 'apple' > *p^{h}iŋko.* 'apple'. The monophthongisation, however, has likely already happened at the level of the local Sichuanese Mandarin dialect that functions as the donor language.

Mid-central unrounded vowel /ə/

The vowel /ə/ constitutes the only central phonemic vowel in the Geshiza vowel system. The vowel /ə/ is sometimes changed into /i/ (see §3.4.2 for vowel assimilation and vowel harmony), yet the two remain distinct phonemes: e.g. *rjə* 'wild horse', *rji* '(domesticated) horse'.

Close front unrounded vowel /i/
Like /e/, the vowel /i/ is relatively rare, except in the second person forms of transitive verbs where it occurs due to vowel fusion.

Close back rounded vowel /u/
Of all the vowels, the vowel /u/ has the widest range; its formants vary widely along the F_2-axis. The same phenomenon has been reported from Mazi Stau by Vanderveen (2015). Some tokens of /u/ are acoustically in the range that is typical for central vowels.

Descriptions of the marginal vowels
Geshiza has three marginal vowels: /y, ɨ, ɛ/. In defining marginal vowels vis-à-vis full phonemic vowels, the following three criteria are used. First, marginal vowels have a very low functional load to create phonemic contrast in the phonological system of Geshiza. Instances in which such contrast does nevertheless arise, are discussed below. Second, marginal vowels occur with a low frequency in the language in comparison to the full phonemic vowels. Also, apart from /ɛ/, marginal vowels occur predominantly in loanwords, rather than in the native lexicon. Against this backdrop, an increasing influx of Chinese loanwords will likely influence the status of these marginal vowels. Finally, no marginal phoneme occurs as the coda vowel of a verb, unlike all full phonemes. In addition to the rarity of the marginal vowels, since the consultants show considerable reluctancy towards pronouncing Chinese loanwords individually for recording, the marginal vowels are excluded from the statistical analyses conducted earlier in this section.

close front rounded marginal vowel /y/
The close front rounded vowel does not cause phonemic contrast in Geshiza. It occurs almost exclusively in new Chinese loanwords that are less rigidly established into the Geshiza lexicon, e.g. *xontɕyn* 'Red Army' < Ch. *hóngjūn* 红军 'Red Army', *tɕantɕyn* 'general' < Ch. *jiāngjūn* 将军 'general'. The use of /y/ Chinese loanwords is not consistent, and some speakers with a less proficient command of Chinese omit it altogether. Consequently, the marginal vowel /y/ is clearly a manifestation of increasing Chinese influence in the Geshiza phonological system. Older Chinese loanwords, such as *jime* 'corn' < *yùmǐ* 玉米 'corn' and *joŋji* 'potato' < *yángyù* 洋芋 'potato', do not contain the marginal vowel.

Two attested instances of the marginal phoneme /y/ in the native lexicon are *dʑy(w)æ* 'fox' and *ltɕɔltɕy* 'mosquito', yet variation exists among speakers. For instance, some Balangers prefer the pronunciation *ltɕɔltɕi* for 'mosquito'. In addition, /y/ surfaces in the more nativised Chinese loanword *kʰytæ* 'sack' < *kǒudài* 口袋 'bag, sack'.[31] In two of the cases, the vowel in the second syllable is /æ/, hinting towards the possibility of assimilation by fronting (see §3.4.2

[31] If the loanword were of the new stratum, **kʰəutɛ* would be expected.

for a discussion on vowel harmony). No instances of [u] in syllable 1 and [æ] in syllable 2 are attested in the source materials. *dʑy(w)æ* and *kʰytæ* thus likely manifest an underlying pre-assimilated /u/.

close central unrounded marginal vowel /ɨ/

The marginal vowel /ɨ/ has very low functional load. It only occasionally results from vowel fusion in the verbs. Only few instances of phonemic contrast are attested in the analysed source materials. The marginal vowel /ɨ/ contrasts with /u/ in the first person forms of few transitive verbs that end in *-ə* in the stem form, e.g. *stɕʰu* 'plough blade'; *stɕʰɨ* 'I move (things to a different place)'; *zdu* 'suffering, misery, sorrow', *zdɨ* 'I pile (things on top of each other)'. Also, as a marginal vowel, /ɨ/ differs from /y/ in two major aspects in terms of its phonological properties: it is central and unrounded, the latter feature clearly illustrated in Figure 3.14.

open-mid front unrounded marginal vowel /ɛ/

Duo'erji (1997) includes /ɛ/ as a phonemic vowel in Geshiza, a view different from the marginal phoneme interpretation adopted in this grammar. The functional load of the marginal /ɛ/ is very light, and it is thus considered a marginal phoneme here. The instances with /ɛ/ almost exclusively result from Chinese loanwords. The marginal phoneme, however, appears in few frequent everyday native lexemes, but without phonemic contrast with /e/, examples of which are given in (3.2):

(3.2)

mɛ-	'negative prefix'
ŋɛ-	'1SG.GEN'
skɛ	'more'
rjɛ	'eight'
æqɛ	'all, everyone, everything'
mbrɛ	'rice'

In addition, as examples in (3.3) show, /ɛ/ also frequently results from vowel fusion with case enclitics and argument indexation morphemes of the verbs (see §3.4.3 for vowel fusion). The former is optional while the latter is compulsory.

(3.3)

ŋæ=je	>	*ŋɛ*	'1SG.GEN'
æmæ=je	>	*æmɛ*	'mother.GEN'
næ-ra-i	>	*næ-rɛ*	'Hit!'
dæ-læ-i	>	*dæ-lɛ*	'Let (e.g. in)!'

Geshiza nativised lexicon, namely the native lexicon and Tibetan loans, lacks minimal pairs where the choice between /ɛ/ and /e/ carries the load of differentiating between two meanings. Such minimal pair differences appear only when one of the contrasting lexical items is a recent Chinese loan, as in *k^{h}e və* (Geshiza.bread LV:do.INF) 'to cook Geshiza bread' versus *k^{h}ɛ və* 'opening LV:do' < Ch. *kāi* 开 'to open' (3.4):

(3.4) *k^{h}e* 'Geshiza bread' (native word)
k^{h}ɛ 'opening', as in *k^{h}ɛ və* 'to open < Ch. *kāi* 开 [k^{h}æi̯] 'to open'
ts^{h}e 'life span' < Tib. *tshe* 'life, life span'
ts^{h}ɛ 'vegetable, dish (of food)' < Ch. *cài* 菜 [ts^{h}æi̯] 'vegetable, (food) dish'

/ɛ/ occasionally surface as [ɛi̯] in Chinese loanwords, especially when followed by a syllable with starting with the glide /j/: *meju* [mɛi̯ju] < *méiyóu* 煤油 'kerosene'. In sum, /ɛ/ is a marginal phoneme in Geshiza that is becoming integrated into Geshiza vowel system primarily due to increasing interaction with the Han Chinese.

3.2.2. Diphthongs

This subsection investigates whether the sequences of two vowel-like elements should most parsimoniously be interpreted as VV or VC/CV in Geshiza phonology and phonotaxis. The question whether Geshiza possesses diphthongs in the native lexicon is important, both in Geshiza phonology and comparative Horpa studies. The present grammar argues that eight diphthongs exist in Geshiza, illustrated in Table 3.19 below. All diphthongs include the vowel /u/. The diphthongs can be divided into two subgroups: /u/ initial and /u/ finals. In the former, /u/ forms diphthongs with all other Geshiza vowels: *ui, ue, uæ, ua*, *uə*, *uo,* and *uɔ*. In contrast, the /u/ final group has only one member: *əu*.

Table 3.19. Diphthongs in Geshiza

Diphthong	Example 1	Example 2
ui	*ŋui* 'before'	*zui* 'ember'
ue	*s^{h}ue* 'to wake up'	*tɕ^{h}ue* 'religion, dharma'
uæ	*v-k^{h}uæ* 'to cut'	*quæræ* 'ditch, gutter'
ua	*lxua* 'to appear'	*ʀqua* 'throat'
uə	*ɣuə* 'head'	*ŋuə* 'copula'
uɔ	*æ-ʀguɔ* 'classifier for chunks'	*dzuɔ* 'to see stars'
uo	*ɲoruo* 'ladies' gathering'	*ʀuo* 'height, stature'
əu	*ʀəu* 'one'	*ʀgəu* 'wheat'

Frequency analysis

Figure 3.15 shows the relative frequencies of the Geshiza diphthongs from a sample of 1800 lexical items. The data is tabulated in detail in Table 3.20 further below. Rather than having approximately equal shares, the frequencies of the diphthongs are heavily lopsided. Reasons for this are discussed at the end of the subsection.

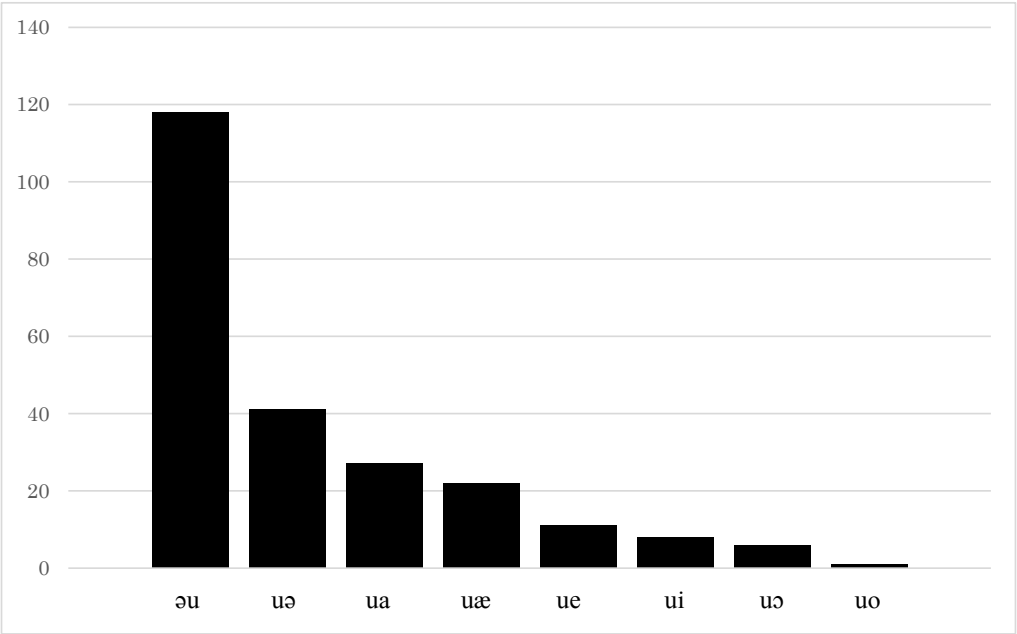


Figure 3.15. Frequencies of the Geshiza diphthongs (sample size 1800 lexical items)

Table 3.20. Relative frequency of the Geshiza diphthongs

Vowel	Number of tokens	Relative frequency
/əu/	118	50.4%
/uə/	41	17.6%
/ua/	27	11.6%
/uæ/	22	9.4%
/ue/	11	4.7%
/ui/	8	3.4%
/uɔ/	6	2.6%
/uo/	1	0.4%
Total	234	100.1%

Diphthongs and phonemic status

Contrasting with some languages, e.g. English, diphthongs do not have status as separate phonemes in Geshiza, being instead analysed here as vowel sequences, an interpretation which keeps the language's phonemic inventory simple. Consequently, all Geshiza diphthongs can be segmented into their constituent vowels that occur as monophthongs in the language. In this, their behaviour is identical with Geshiza consonant clusters that are always segmentable into their constituent units and do not form independent phonemes in the language.

Justification for the diphthongic interpretation

Whether Geshiza is seen as having diphthongs is a question of selecting the optimal phonological interpretation with both the pro and contra positions requiring justification. The diphthongic interpretation adopted in the present work posits the glide *w* as an element in a VV sequence, and not as a medial in a C_mV sequence, or as the final consonant in a VC sequence. The interpretation aims to keep the phonological system of Geshiza as simple and systematic with the fewest number of assumptions required.

First, that *w* fails to function as a proper medial in Geshiza derives from the fact that while the language phonetically has a glide and medial sequence [ji] at the medial position, as in *ɾji* 'horse', the medial position glide and medial sequence [wu] is absent in the language, creating asymmetry. If *j* and *w* were medials of an equal status in the language, both sequences could be expected.

Second, non-diphthongic interpretations of *w* either as a syllable medial or syllable final would create irregularity to verb paradigms. For instance, if /ui/ is interpreted as a /wi/, verbs with the coda vowel *-u* would alternate between *w* and *u* in their paradigms. This is illustrated in Table 3.21 below, the left representation following the diphthongic and the right one the non-diphthongic interpretation. Also, if /əu/ is seen as /əw/, a syllable-final consonant cluster *wn* would arise in verbs with *-w* as the new coda consonant. This would require alternations to the simple phonotactic rules of final consonants allowing no clusters.

Table 3.21. Comparison of the diphthongic and non-diphthongic interpretations

Person	*nts^{h}u* 'to point'		*nʑəu* 'to climb'	
1SG	*nts^{h}u*	*nts^{h}u*	*nʑəu*	*nʑəw*
1PL	*nts^{h}oŋ*	*nts^{h}oŋ*	*nʑoŋ*	*nʑoŋ*
2SG	***nts^{h}ui***	***nts^{h}wi***	*nʑe*	*nʑe*
2PL	*nts^{h}un*	*nts^{h}un*	***nʑəun***	***nʑəwn***
3	*nts^{h}u*	*nts^{h}u*	*nʑəu*	*nʑəw*

Third, establishing *w* as a medial in Geshiza would lead to a drastic restructuring in the medial system of the language, discussed in (§3.3.3.2). Most of the allowed initials occur with at least two of the medials *-r, -l,* and *-j.* Adding *-w* as a medial would create a large subset of highly peculiar medial clusters in the sense that initials would not occur together with any other medial: *ŋw-, tsw-, tsʰw-, tɕw-, tɕʰw-, dʑw-, ɕw-, ɕʰw-, ʑw-, xw-, ɣw-*. Additionally, the number of $C_pC_iC_m$ clusters would also be greatly increased, with also the need to establish four-member $C_pC_iC_{m1}C_{m2}$ clusters, which would further complicate the phonotactic analysis of Geshiza.

Modifying Duo'erji (1997) into the diphthongic interpretation adopted here suggests that Eastern Geshiza has a contrast between the diphthongs /əu/ and /æu/. While such contrasts possibly exists upriver from easternmost Geshiza Valley, the phonological system of Balang Village lacks the opposition. Thus, the verbs *v-ra* 'to hit' and *v-ræ* 'to write' both have the identical first person singular form *rəu* instead of a contrast *rəu* 'I hit' and **ræu* with the intended meaning 'I write', respectively.

Origin of the diphthongs

The inclusion of /u/ in all of the diphthongs hints of their historical origin as vowel and semivowel sequences. For instance, at least some instances of the diphthong /əu/ can be shown to originate from a previous non-diphthongic form *əw that in turn further originates from two older coda sources: *-Vk, *-Vp. For instance, *ɹjəu* (*rjəw < *rjVp) 'wife' corresponds to *tɤ-rʑaβ* 'wife' (Jacques 2015a: 317) in Japhug, a related core Gyalrong language. Table 3.22 below shows the final codas *-Vk and *-Vp present in proto-Trans-Himalayan and likely in some following stages at the history of Geshiza have given rise to the diphthong. Since PTH reconstructions still remain uncertain, Japhug data is given as a representative Trans-Himalayan language that preserves the codas lost in Geshiza. Also, as it was shown in Table 3.20, the diphthong *əu* has by far the highest frequency among all of the diphthongs, which further points towards its origin from a vowel and coda consonant sequence. As discussed in §3.3.4, the final consonant *-w* does not exist in contemporary Geshiza.

Table 3.22. Some sources of the diphthong /əu/ in Geshiza (PTH data from Matisoff 2003, Japhug data from Jacques 2015a)

PTH	Japhug	Geshiza	Gloss
*(s)-nak	*ɹnaʁ*	*nəu*	deep
*mik	*tɯ-mɲaʁ*	*məu*	eye
*ka:p	*kaβ*	*kʰəu*	PTH and *Ge.* to draw water; *Japh.* to scoop water
*krep	*qroʁ-*	*skʰrəu*	ant
*s-nap	*tɯ-ɕnaβ*	*snəu*	nasal discharge

3.2.3. Issue of triphthongs

The diphthong model described above leads into the necessity of establishing one diphthong as a part of the complex vowel inventory. The sequence /uəu/, as in the verb form *ntɕʰuəu ~ ntʰjuəu* 'I step on', occurs with a low frequency exclusively in paradigms of several verbs. In sum, while the diphthong model causes more complexity in a single aspect of phonological modelling, its complexity-decreasing merits illustrated above far outweigh this.

3.3. Syllable structure and phonotaxis

This section discusses Geshiza syllable structure and phonotaxis, with great focus on the abundant consonant clusters in the language. It is divided into analyses of the syllable structure (§3.3.1), initial consonants (§3.3.2); consonant clusters (§3.3.3); final consonants (§3.3.4); and rimes (§3.3.5).

3.3.1. Syllable structure

The Geshiza syllable canon is complex, since the language allows six elements to-co-occur in a single syllable: (C_p) (C_i), (C_m) V_1 (V_2) (C_f). As illustrated in Table 3.23, Geshiza allows 13 distinct syllable types in total. The syllable VV is lacking among the syllable types. Also, CCCVVC is the most complex allowed syllabic form attested in Geshiza. In phonotactic terms, some of these syllable types can be formed in different ways. For instance, a CCV syllable can be formed either from C_pC_iV (*vdzi* 'man, person') or C_iC_mV (*pʰjə* 'outside').

Table 3.23. Geshiza syllable types with examples

Type	Example 1	Example 2
V	*a* 'interrogative interjection'	*æ-* 'interrogative prefix'
CV	*dʑa* 'tea'	*kʰo* 'owl'
CVV	*ɕʰua* 'night'	*ŋuæ* 'five'
CCV	*wbə* 'Sun'	*sme* 'woman'
CCVV	*zdəu* 'to marry'	*sməu* 'I like'
CCCV	*mbrɛ* 'rice'	*zgre* 'star'
CCCVV	*ltʰjəu* 'I link'	*zbləu* 'vapour'
CVC	*goŋ* 'price'	*ɲoŋ* 'ear'
CVVC	*bəun* 'you (SG/PL) get off'	*rəun* 'you (PL) sew'
CCVC	*groŋ* 'village'	*srən* 'to bear, endure'
CCVVC	*rdʑəun* 'you (PL) divine'	*ltəun* 'you (PL) fold'
CCCVC	*stʰjoŋ* 'we insert'	*mpʰroŋ* 'we wear (shoes)'
CCCVVC	*stʰjəun* 'you (PL) insert'	*mpʰrəun* 'you (PL) wear (shoes)'

The single vowel V syllable is the most peculiar with highly restricted distribution in the lexicon. This type is consequently analysed in detail below. The syllable type V consists only of a vowel nucleus and cannot occur as an independent morpheme, unlike the other syllable types, except in interjections. The syllable V has limited range of allowed vowels: *e, æ, a, (ə), ɔ*, and *o*. Of these, only *æ,* and *a* appear outside interjections (see §4.12) and hesitation.

Outside interjections and hesitation, the syllable type V has three major origins. First, some instances of its appearance reflect a Proto-Trans-Himalayan kinship prefix (3.5), discussed further in §4.2.4. Second, the prefix appears as the bound form of the numeral 'one' in tandem with classifiers that never stand alone (3.6). Finally, historically linked with the bound numeral one, the syllable type appears also in semelfactive derivations (3.7), discussed in §6.2.3.3. It is worth noting that the vocalic realisation of the preinitial x/ɣ- is not a full syllable (see §3.3.3.1). In other words, *ʁjə* < *ɣjə* 'fish' exhibits the syllabic structure of CV, not VCV.

(3.5) ***æ**-mæ* 'mother'
***æ**-pa* 'father'
***æ**-mɲi* 'grandfather'

(3.6) ***æ**-ɣi* 'one person'
***æ**-vtɕa* 'one pair'
***æ**-li* 'one time, once'

(3.7) ***æ**-nts^{h}ərɣi* 'washing the face once'
***æ**-ŋk^{h}uə* 'putting in once'
***æ**-snəno* 'smelling once'

Phonemic oppositions

Table 3.24 summarises the number of existing phonemic opposition per position in Geshiza syllables. In the V slot, both the eight monophthongs and the eight diphthongs have been included. As the table illustrates, the slots of initial consonants (C_i) and vowels (V) bear the highest oppositional burden in the language.

Table 3.24. Number of phonemic oppositions in different loci of the maximal syllable

Position	# of oppositions	Example 1	Example 2
C_p	8	*wrə* 'water'	*zrə* 'broom'
C_i	37	*rgo* 'cow'	*rko* 'leg'
C_m	3	*bjə* 'to go away'	*brə* 'to break' (fabric)
V	16	*ŋi* 'to be all right'	*ŋo* 'to be sick'
C_f	4	*dzoŋ* 'I sit'	*dzon* 'you sit'

3.3.2. Initial consonants

Geshiza has no limitations concerning allowed syllable-initial consonants. All of the 37 full and the 2 marginal consonant phonemes (see §3.1) can appear as non-cluster initials in a syllable regardless of the placement of the syllable in a multi-syllabic lexical item.

3.3.3. Consonant clusters

Geshiza consonant clusters constitute the most complex part of Geshiza phonotaxis. Altogether 269 distinct consonant clusters were attested in the source materials of this grammar. I follow the terminological tradition in Gyalrongic research in which consonants of a cluster are divided into preinitials C_p, initials C_i, and medials C_m, rather than giving a numerical value to the consonants in a cluster: C_1 C_2 C_3. The term preinitial C_p may appear as emphasising the cluster members' secondary status vis-à-vis the initial consonants C_i. Since in everyday speech, consonant clusters often simplify through preinitial dropping, while the initials are not omitted, the conventional terminology is entirely appropriate and retained in this typologically oriented grammar.

Definitions

The three positions in consonant clusters may be defined in stages. Initial consonants C_i refer to the full set of Geshiza consonant phonemes occurring in non-clustered environments together with a vowel in a syllable, e.g. *ʑ* in *ʑa* 'hand'. The medial consonants C_m are in turn defined as /r, l, j/ that may be interposed between the initial and a vowel, e.g. /j/ in *zjə* 'to sell'. Other two-consonant sequences, however, also occur in Geshiza. In such sequences that cannot be interpreted as C_iC_m, the first element is defined as the preinitial C_p, e.g. /w/ in *wbə* 'Sun'. This results in an inventory of nine preinitials in Geshiza: m, n, N, v, s/z, x/ɣ, r, l, w. The procedure above interprets CC clusters with theoretically two possible interpretations constantly as C_iC_m, rather than C_pC_i. For instance, *wrə* 'water' is interpreted as C_iC_m. It should be noted that diachronically, some of such cases may originate as C_iC_m and others as C_pC_i.

Types of consonant clusters

Combining the preinitials, initials, and medials, three kinds of consonant clusters are allowed in Geshiza: C_pC_i (182 instances; see §3.3.3.1), C_iC_m (39 instances; see §3.3.3.2), and $C_pC_iC_m$ (48 instances; see §3.3.3.3). In sum, a Geshiza cluster can maximally contain three consonant phonemes. Table 3.25 pm the following page (modelled after Vanderveen 2015: 104) summarises the consonant cluster phonotactics. Importantly, the use if initial in the context of Gyalrongic consonant clusters differs from the use of the term in syllable structure. To illustrate, when a preinitial is present, the preinitial, rather than the initial, is the initial consonant of a syllable.

Table 3.25. Summary of consonant cluster phonotactics

Cluster type	Position	Attested consonants
C_pC_i	C_p	*m, n, N, v, s/z, x/ɣ, r, l, w*
	C_i	*m, n, ɲ, ŋ, p, p^h, b, t, t^h, d, k, k^h, g, q, q^h*
		ts, ts^h, dz, tɕ, $tɕ^h$, dʑ, ʈʂ, $ʈʂ^h$, ɖʐ, v, s, s^h, z, ɕ, $ɕ^h$, ʑ, x, ɣ
C_i C_m	C_i	*p, p^h, b, t, t^h, d, k, k^h, g, q, q^h, v, s, s^h, z, ɣ, r, l, w*
	C_m	*r, l, j*
$C_pC_iC_m$	C_p	*m, N, v, s/z, l*
	C_i	*p, p^h, b, t, t^h, d, k, k^h, g, q, q^h, s, s^h, z*
	C_m	*r, l, j*

Distributional restrictions

The major distributional restrictions of consonants in clusters include the following. First, stops or affricates are only allowed as initials, the two consonant classes being absent from the preinitial and medal positions. Second, the preinitial and medial positions always lack aspiration. Furthermore, the marginal consonant phonemes /f, ʂ/ only appear as initials. In this context, however, it should be noted that /f/ does appear as an allophone of /v/ in nativised Geshiza lexicon, as discussed in §3.1. Finally, only the approximants /j, l, r/ are allowed as medials, other consonant types being absent (see §3.2.2 for a discussion concerning the alternative interpretation of /w/ as a medial consonant).

While some of the consonant clusters, such as *ŋx* are 'phonological hapax legomena' in the source materials, their presence in the lexicon of the language nevertheless requires their listing as a part of the consonant cluster inventory of Geshiza. At the analysis of the consonant clusters, occurrence in at least one lexical item that is well established as a part of the Geshiza lexicon has been used as the minimum criterion of inclusion.

Consonant clusters and the Sonority Sequencing Principle

Geshiza violates the tendency called the Sonority Sequencing Principle, according to which the sonority in a syllable increases from the edges to the nucleus functioning as the sonority peak (Jespersen 1904). Sonority hierarchy is frequently represented as in (3.8), sonority progressing from high to low along the hierarchy:

(3.8) vowels > glides > liquids > nasals > fricatives > affricates > plosives

In Geshiza, C_iC_m consonant clusters generally follow the sonority sequencing principle, clusters with an approximant C_i maintaining the same sonority level before the coda vowel. Nevertheless, most C_pCi clusters, e.g. *nk^h* and *ld*, violate the principle. The related Stau (Vandeveen 2015), Wobzi Khroskyabs (Lai 2013), and Japhug (Jacques 2008) languages also

violate the sonority sequencing principle, which indicates that it is a common genealogical feature in the Gyalrongic languages.

Phonetic realisation of the consonant clusters

Full realisation of clusters in Eastern Geshiza belongs typically to the domain of carefully articulated speech. As described in the context of phonological processes, the cluster system is currently undergoing simplification primarily through weakening of the preinitials (see §3.5.1) This constitutes a second factor that will likely lead into simplification of the Geshiza cluster system in the future. Also, as discussed in §2.9.4, lexical replacement will likely lead to the simplification of Geshiza consonant clusters, since the younger generations are not taking over parts of the lexicon containing phonological hapax legomena in clustered environments. For instance, the already rare verb *ndja* 'to learn a lesson' likely becomes obsolete in several decades, after which the cluster $C_iC_mC_j$ *ndj* disappears from Geshiza.

Methodological note

In the following description of the Geshiza consonant clusters, the presented results have been extracted from the whole recorded lexicon collected during the fieldwork. Ideally, all possible combinations would have been checked by going systematically through all possible phonotactic combinations. Due to overwhelming amount of theoretical combinations, however, such a procedure could not have been followed here. Consequently, a possibility remains that future studies discover further consonant clusters in the language. Against this backdrop, possible gaps in data are discussed in their proper contexts.

3.3.3.1. C_pC_i clusters

This subsection discusses Geshiza C_pC_i clusters with a focus on one preinitial at a time. The structure of allowed preinitials in Geshiza is rather restricted, but with 182 attested instances, the total number C_pC_i clusters is high. The eight allowed preinitials include *N-, m-, r-, l-, w-, v-, s/z-, x/ɣ-* in which *N-* stands an abstract nasal preinitial that assimilates into the following consonant, thus functioning as an archiphoneme.

Preinitial N-

As illustrated in Table 3.26 on the following page, all non-nasal consonants in Geshiza except the borrowed marginal phonemes /f, ʂ/ can be prefixed by a homorganic nasal, resulting in 34 prenasal clusters, expressed in the format N_pC_i in this grammar. Examples of the preinitial are listed in Table 3.27.

Table 3.26. Attested N_pC_i clusters in Geshiza

Type	Bilabial	Labio-dental	Dental-alveolar	Alveolo-palatal	Retroflex	Palatal	Velar	Uvular
Plosives	*mp*		*nt*				*ŋk*	*ɴq*
	mp^h		*nt^h*				*ŋk^h*	*ɴq^h*
	mb		*nd*				*ŋg*	
Affricates			*nts*	*ntɕ*	*ɳʈ ~ ɳʈ͡ʂ*			
			nts^h	*ntɕ^h*	*ɳʈ^h ~ ɳʈ͡ʂ^h*			
			ndz	*ndʑ*	*ɳɖ ~ ɳɖ͡ʐ*			
Fricatives			*ns*	*nɕ*			*ŋx*	
			ns^h	*nɕ^h*				
		nv	*nz*	*nʑ*			*ŋɣ*	
Approx.		*nw*	*nl*		*nr*	*ɲj*	*nw*	

Table 3.27. C_pC_i clusters with the preinitial *N-*

Cluster	Example 1	Example 2
ɱp	*-ɱpæ* ‘to lose’ PST’	*-ɱpæl* ‘to increase’ PST, INTR
ɱpʰ	*ɱpʰæ* ‘to lose’ NPST	*ɱpʰæl* ‘to increase’ NPST, INTR
ɱb	*ɱbədu* ‘blowpipe’	*ɱbəzə* ‘gunpowder’
nt	*-nta* ‘to wear’ (e.g. spectacles) PST	*-ntʰantʰa* ‘to argue’ PST
ntʰ	*ntʰæma* ‘despicable person’	*ntʰu* ‘fatty meat’
nd	*ndæra* ‘to leak’	*ndɔdɔ* ‘to be careful’
ŋk	*ŋkæræ* ‘saw’	*ŋkaka* ‘to chew’ (soft food)
ŋkʰ	*ŋkʰæva* ‘snow’	*ŋkʰuma* ‘key’
ŋg	*ŋgæ* ‘nine’	*ŋgə* ‘to eat’
ɴq	*ɴqæto* ‘beating’	*-ɴqi* ‘to be thin’ PST
ɴqʰ	*ɴqʰi~ɴqʰi* ‘thin’	*ɴqʰi* ‘to be thin’ NPST
nts	*ntsu* ‘to suck’ NPST	*-ntsætsæ* ‘to try’ PST
ntsʰ	*ntsʰælma* ‘dream’	*ntsʰə* ‘to think’
ndz	*ndzær* ‘nail, to nail’	*ndzo* ‘to sit, stay’
ntɕ	*ntɕa* ‘make, be friends’	*ntɕə* ‘to slaughter’
ntɕʰ	*ntɕʰæɖʐɔ* ‘torrential rain’	*ntɕʰo* ‘to have, possess’ NPST
ndʑ	*ndʑə* ‘existential verb’	*ndʑər* ‘to change’ INTR
nv	*n-və* ‘to celebrate’	n/a
nʈʂ	*-nʈʂæ* ‘to milk’ PST	*nʈʂulu* ‘to dig the ground with snout’ NPST
nʈʂʰ	*nʈʂʰæ* ‘to milk’ NPST	*-nʈʂʰulu* ‘to dig the ground with snout’ PST
nɖʐ	*nɖʐa* ‘effigy, lookalike figurine’	*nɖʐəgə* ‘day before yesterday’
ns	*-nsærʐə* ‘to be familiar with’ PST	*nso* ‘to be bright’ PST
nsʰ	*nsʰærʐə* ‘to be familiar with’ NPST	*nsʰo* ‘to be bright’ NPST
nz	*nzætsɔ* ‘to squat’	n/a
nr	*nrekær* ‘to take turns’	n/a
nɕ	*-nɕə* ‘to jump’ PST	*-nɕɔ~ɕɔ* ‘to joke in pairs’ PST
nɕʰ	*nɕʰə* ‘to jump’ NPST	*nɕʰɔ~ɕʰɔ* ‘to joke in pairs’ NPST
nʑ	*nʑæ* ‘to give birth’	*nʑə* ‘to warm oneself’ (e.g. by fire)
ŋx	*ŋxa* ‘to steam’	n/a
ŋɣ	*ŋɣædzo* ‘to stumble’	n/a
nw	*nwa* ‘to be in disorder’	*nwə* ‘to own money’
nl	*nle* ‘to lever open’	*nlolə* ‘to feel about, finger, fumble’
ɲj	*ɲji* ‘to be red’	*ɲjɔ* ‘servant, serf’

The presence of a large number of nasal clusters in Geshiza is parsimoniously accounted for by an abstract nasal preinitial *N-* functioning as an archiphoneme. *N-* assimilates regressively into the following consonant, which results in a consonant cluster with a homorganic nasal preinitial. The abstract nasal preinitial *N-* is not a contrasting phoneme and it could in principle be replaced by *n- or* any other nasal phoneme, save *m*, as the underlying pre-assimilatory basic form. Since a distinct preinitial *m* in consonant clusters do not assimilate, *N-* is interpreted as an allophone of *n*. In other words, this interpretation sees /n/ as the underlying basic nasal phoneme, in contrast to /ɲ/ or /ŋ/. It can be justified on typological grounds: when a phonological system has only one nasal, it is coronal. When two nasals occur in the system, they are coronal and bilabial. Both of the nasal preinitials retain their voicedness in all environments, failing to undergo voicing assimilation.

An alternative phonological interpretation would treat Geshiza N_pC_i clusters as phonologically independent prenasalisations on par with the other phonemic consonants. In addition, nasalisation is also interpreted as suprasegmental feature in some languages (see e.g. Donohue 2000 on Papuan languages). In the case of Geshiza, however, both interpretations merely complicate the phonological description of the language and fail to provide added value for the analysis. For instance, modelling of the syllable structure does not depend on whether the co-occurrences of a preinitial nasal with an initial consonant be treated as consonant clusters or separate phonemes. Also, even though giving the N_pC_i clusters a status of independent phonemes greatly reduces the number of consonant clusters needed to establish in the language, this would nevertheless come at the cost of greatly complicating the phonemic inventory. Finally, morphological operations, such as autobenefactivisation (see §6.2.3.7) and verbalisation (see §6.2.2.5) demonstrate that the nasal in N_pC_i clusters are indeed separate, providing evidence against the suprasegmental model. To illustrate, *m-bær~bær* 'to bend the upper body down' derives from *bær~bær* 'low' with the addition of the verbalising prefix *N-*.

The following details concerning individual NC_i clusters require further attention. First, the cluster *ɲj* contrasts with the palatal nasal phoneme *ɲ*: *ɲji* 'to be red', *ɲi* 'you'. Second, as briefly mentioned above, no instances where /f/ and /ʂ/ are prefixed with the nasal prefix *N-* have been attested. This provides further evidence for the claim that they do not belong to the core phonological inventory of the language, being instead phonologised at a later stage of Geshiza as a result of language contact and the resulting borrowing.

Remaining N_pC_i clusters

The remaining discussion of consonant clusters concerns all the other preinitials, illustrated in Table 3.28 on the following page. Since the distribution of the preinitials *s-, z-* and *x-, ɣ-* depends on phonological factors, they can be interpreted as single preinitials: *s/z-* and *x/ɣ-*, details of which are discussed below. Slots with question marks indicate clusters that could be expected from a systemic viewpoint, but are nevertheless lacking in the source materials.

It should be noted that the clusters *mp*, *mp^h* and *mb* are double listed in Tables 3.26 and 3.28. Even though these clusters are universally interpreted as the NC_i type, in synchronic phonology they also fulfil the conditions for being classified as preinital *m-* clusters. This grammar follows the former interpretation to systematise the presentation of the phonological system. It is nevertheless possible that the *mC*{labial} preinitial clusters originate historically from two distinct sources, namely *N-* preinitial and *m-* preinitial. This diachronic dimension is ignored in this chapter and left as a topic for further research.

Table 3.28. Attested C_pC_i clusters, excluding N_pC_i

Cp	Ci														
	m	n	ɲ	ŋ	p	pʰ	b	t	tʰ	d	k	kʰ	g	q	qʰ
m		*mn*	*mɲ*		*(mp)*	*(mpʰ)*	*(mb)*	*mt*	*mtʰ*	*md*	*mk*	*mkʰ*	*mg*	*mq*	*mqʰ*
r	*rm*	*rn*	*rɲ*	*rŋ*			*rb*	*rt*	*rtʰ*	*rd*	*rk*	*rkʰ*	*rg*	*rq*	*rqʰ*
l	*lm*			*lŋ*	*lp*	*lpʰ*	*lb*	*lt*	*ltʰ*	*ld*	*lk*	*lkʰ*	*lg*	*lq*	*lqʰ*
w	*wm*	*wn*	*wɲ*		*wp*	*wpʰ*	*wb*	?	*wtʰ*	*wd*					
v								*vt*	*vtʰ*	*vd*	*vk*	*vkʰ*	*vg*	*vq*	*vqʰ*
s/z	*sm*	*sn*	*sɲ*	*sŋ*	*sp*	*spʰ*	*zb*	*st*	*stʰ*	*zd*	*sk*	*skʰ*	*zg*	*sq*	*sqʰ*
x/ɣ	*(ɣm)*	*(ɣn)*	*(ɣɲ)*		*(xp)*	*(xpʰ)*	*(ɣb)*	*(xt)*	*(xtʰ)*	*(ɣd)*					

(cont.)

Cp	Ci													
	ts	tsʰ	dz	tɕ	tɕʰ	dʑ	ʈʂ	ʈʂʰ	ɖʐ	v	s	sʰ	z	ɕ
m	*mts*	*mtsʰ*	*mdz*	*mtɕ*	*mtɕʰ*	*mdʑ*								
r	*rts*	*rtsʰ*	*rdz*	*rtɕ*	*rtɕʰ*	*rdʑ*				*rv*			*rz*	
l	*lts*	*ltsʰ*	*ldz*	*ltɕ*	*ltɕʰ*	*ldʑ*	*lʈʂ*			*lv*				
w	*wts*	*wtsʰ*	*wdz*	*wtɕ*	*wtɕʰ*	*wdʑ*	*wʈʂ*	*wʈʂʰ*	?	*wv*	*ws*	*wsʰ*	*wz*	*wɕ*
v	*vts*	*vtsʰ*	*vdz*	*vtɕ*	*vtɕʰ*	*vdʑ*			*vɖʐ*		*vs*	*vsʰ*	*vz*	*vɕ*
s/z				*stɕ*	*stɕʰ*	*zdʑ*				*zv*				
x/ɣ	*(xts)*	*(xtsʰ)*		*xtɕ*	*(xtɕʰ)*					*(ɣv)*	*xs*	*(xsʰ)*	*(ɣz)*	*(xɕ)*

(cont.)

Cp					
	ɕʰ	ʑ	x	ɣ	**number of clusters**
m					16
r				*rɣ*	22
l			*lx*	*lɣ*	23
w	*wɕʰ*	*wʑ*			23
v	*vɕʰ*	*vʑ*	*vx*	*vɣ*	23
s/z			*sx*	*zɣ*	21
x/ɣ	*(xɕʰ)*	*(ɣʑ)*			20

Preinitial m-

Geshiza has 16 mC_p clusters, listed in Table 3.29. The distribution of the preinitial *m-* excludes all fricative initials, though affricate initials are attested in entirety. The preinitial *m-* occurs with all stop initials and it also combines with two nasals: *mn*, *mŋ*. Of these, the cluster *mŋ* is in free variation with the C_iC_m cluster *mj*: *mŋa ~ mja* 'negative copula'.

Table 3.29. C_pC_i clusters with the preinitial *m-*

Cluster	Example 1	Example 2
mn	*mna* 'oath'	*mnæ* 'to reach, live up to'
mŋ	*mŋa* 'negative copula'	*mŋə* 'to know, be able'
(mp)	*-mpæ* 'to lose' PST	*-mpæl* 'to increase' PST, INTR
(mp^h)	*mp^{h}æ* 'to lose' NPST	*mp^{h}æl* 'to increase' NPST, INTR
(mb)	*mbədu* 'blowpipe' (tool)	*mbəzə* 'gunpowder'
mt	*mto* 'to cut into pieces' NPST	n/a
mt^h	*mt^{h}ər* 'reins, bridle'	*-mt^{h}o* 'to cut into pieces' PST
md	*mdo* 'Kangding'	*mdɔ* 'colour'
mk	*-mkə* 'to be smoky' PST	*-mkuə* 'to lack' PST
mk^h	*mk^{h}ær* 'tower'	*mk^{h}ə* 'smoke'
mg	*mgo* 'to carry'	n/a
mq	*mæ-**mqo*** 'sky'	*mqo* 'to wear' (monks' robes) NPST
mq^h	*-mq^{h}o* 'to wear' (monks' robes) PST	n/a
mts	*mtsi* 'to sharpen' NPST	*mtso~mtso* 'sharp'
mts^h	*mts^{h}ə* 'paint'	*mts^{h}o* 'sea'
mdz	*mdze* 'to be beautiful'	*mdzo* 'midday, lunch'
mtɕ	*-mtɕəki* 'to watch' PST	*mtɕe* 'hedgehog'
mtɕ^h	*mtɕ^{h}ək^{h}i* 'to watch' NPST	*mtɕ^{h}ərq^{h}o* 'knot'
mdʑ	*mdʑa* 'rainbow'	*mdʑə* 'dance'

The preinitial *m-* must be distinguished from the preinitial *N-* on the basis of nasal assimilation. While the preinitial *N-* invariably assimilates to the following initial, the preinitial *m-* never undergoes assimilation with the initial consonants. The existence of these two distinct nasal preinitials leads to a multitude of C_pC_i clusters with a nasal onset. For instance, *mk* and *ŋk* contrast in Geshiza, differing on whether nasal assimilation takes place or not.

Preinitial r-

Geshiza has 22 rC_p clusters listed in Table 3.30. The preinitial *r-* appears together with all nasal and non-retroflex affricate initials, and with most plosive initials, except *p* and p^h. It also shows highly limited distribution with voiced fricative initials, appearing in *rv*, *rz*, and *rɣ*.

Table 3.30. C_pC_i clusters with the preinitial *r-*

Cluster	Example 1	Example 2
rm	***rmæ**-bja* 'peacock'	*rmæ-sti* 'brothers'
rn	***rnæ**-vɕæ* 'speaking behind the back'	*rnæji* 'to hear badly, have hearing impairment'
rɲ	*rɲæ* 'to be slippery'	*rɲo* 'river'
rŋ	*rŋa* 'face'	*rŋə~rŋə* 'green'
rb	*rbæmæ* 'rooftop'	*rbə* 'to be piled up'
rt	***rtæ**-ko* 'stable'	***rtæ**-lə* 'Horse' (zodiac sign)
rt^h	$rt^hən = t^hə\ rt^hən$ 'ideophone'	n/a
rd	*rdi* 'pot' (for cooking)	*rdivə* 'bullet'
rk	*rko* 'leg'	*rku* 'to carve' NPST
rk^h	rk^hu 'bet, wager'	$rk^hæ$ 'to be good, skilful at sth' NPST
rg	*rga* 'to love'	*rgo* 'cow'
rq	***rqæ**-le* 'to gnaw, chew' (hard wood)	*rqua* 'throat'
rq^h	*snæ-**rq^{h}e*** 'nasal mucus'	$s^hə$-***rq^{h}uə*** 'hollow tree'
rts	*rtsæ* 'deer'	*rtsəbrə* 'cold' (sickness)
rts^h	$rts^hæbə$ 'bull'	rts^hi 'fat'
rdz	*rdza* 'rocky or stony soil'	*rdzoŋ* 'county'
rtɕ	*-rtɕæ* 'to bite' PST	*rtɕɔpa* 'excrement'
$rtɕ^h$	$rtɕ^hæ$ 'to bite' NPST	$rtɕ^he$ 'to tie together, bundle up' NPST
rdʑ	*rdʑæ* 'Chinese'	*rdʑə* 'property'
rv	*rvæle* 'kidney'	*stæ**rvə*** 'guest'
rz	***rzə**-rbu* 'hornet'	*rzəu* 'leopard'
rɣ	*rɣuen* 'pillow'	*rɣi* 'to wash'

Preinitial l-

Geshiza has 23 lC_p clusters, illustrated in Table 3.31. The preinitial *l-* largely mirrors the distribution of the preinitial *r-*. It is compatible with all plosive and non-retroflex affricate initials.

Table 3.31. C_pC_i clusters with the preinitial *l-*

Cluster	Example 1	Example 2
lm	*lmæmæ* 'to cry'	*lmə* 'name'
lŋ	*lŋæ* 'to pour' (e.g. into sewer)	*lŋo~lŋo* 'empty'
lp	*-lpe* 'to rest against' PST	n/a
lp^h	*lp^{h}e* 'to rest against' NPST	*lp^{h}ælə* 'patch, to put a patch' NPST
lb	*lbə* 'stalk' (of a crop plant)	*lbi* 'urine'
lt	*-ltə~tə* 'to collide mutually' PST	*-ltu* 'to wade a river' PST
lt^h	*lt^{h}ə~t^{h}ə* 'to collide mutually' NPST	*lt^{h}u* 'to wade a river' NPST
ld	*ldə* 'heavy'	n/a
lk	*-lkɐ* 'to be overcooked' PST	*lkəu* 'elbow'
lk^h	*lk^{h}e* 'to be overcooked' NPST	n/a
lg	*lguə* 'testes'	*lgupa* 'ninth' (month)
lq	*lqa* 'to open a door' NPST	***ælqo*** 'loner' (animals)
lq^h	*-lq^{h}a* 'to open a door' PST	n/a
lts	*ltsəʑa* 'lama hat'	n/a
lts^h	*lts^{h}əu* 'Sicuan pepper'	n/a
ldz	*ldzə* 'nail' (body)	*ldzue* 'chisel'
ltɕ	*ltɕɔltɕi ~ ltɕɔltɕy* 'mosquito'	n/a
ltɕ^h	*tɕ^{h}ə-**ltɕ^{h}ə*** 'wave'	n/a
ldʑ	*ldʑe* 'end parts of the *dʑərtɕe* 'baby-carrying cloth'	n/a
ltʂ	*ltʂa~ltʂa* 'ideophone for tearing objects into pieces'	n/a
lv	*lvi* 'big axe'	*lvo* 'ice'
lx	*lxua* 'to come out'	n/a
lɣ	*lɣamæ* 'crazy person'	*lɣe* 'joke'

Preinitial w-

Geshiza has 23 wC_p clusters, listed in Table 3.32. The preinitial appears with the affricate and fricative initials, with the exception of *x* and *ɣ*. In addition, it has a restricted distribution with the nasal initials *m, n*, and *ɲ,* together with the initial stops *b* and *d*. Phonotactic symmetry gives a reason to expect that two additional clusters, *wʤ* and *wt*, also exist, yet these clusters were not attested in the source materials, waiting for a likely future discovery, unless the words where these two rare potential clusters have originally occurred have already become obsolete.

Table 3.32. C_pC_i clusters with the preinitial *w-*

Cluster	Example 1	Example 2
wm	*wmæ* 'wound'	*wmə* 'fire'
wn	*wne* 'two'	*wni* 'leather bag'
wɲ	*wɲo* 'to walk or follow behind'	n/a
wp	*wpə* 'to become brittle' NPST	n/a
wp^h	*-wp^{h}ə* 'to become brittle' PST	n/a
wb	*wbætu* 'clay jar, clay pot'	*wbə* 'Sun'
wt^h	*wt^{h}ə* 'beating'	n/a
wd	*wde* 'to be flat, level'	*wdo ~ wdæ-* 'bucket'
wts	*wtsæ* 'to be hot' NPST	*-wtso* 'to be incapable of working' PST
wts^h	*-wts^{h}æ* 'to be hot' PST	*wts^{h}o* 'to be incapable of working' NPST
wdz	*wdzær* 'chopsticks'	n/a
wtɕ	*wtɕə* 'to be tired' NPST	*-wtɕər* 'to be sour' PST
wtɕ^h	*wtɕ^{h}ə* 'thorn'	*wtɕ^{h}ər* 'to be sour' NPST
wdʑ	*wdʑær* 'plate'	*wdʑə* 'sickle'
wʈʂ	*wʈʂælvæ* 'to claw' NPST	*æ-wʈʂæ* 'classifier for times of clawing'
wʈʂ^h	*-wʈʂ^{h}ælvæ* 'to claw' PST	n/a
wv	*wvi* 'millstone'	*ræ-**wvo*** '(mountain) cave, cavern'
ws	*wsi* 'bladder'	*-ws^{h}ə* 'to prepare food and drinks' PST
ws^h	*ws^{h}i* 'to strangle' NPST	*ws^{h}u* 'three'
wz	*wzəza* 'monkey'	*wzi* 'Tibetan shoes'
wɕ	*wɕa* 'flatulence'	*wɕi* 'sweat, to sweat' NPST
wɕ^h	*wɕ^{h}o* 'to send' (e.g. letters) NPST	*-wɕ^{h}u* 'to pick up' PST
wʑ	*wʑæ* 'four'	*wʑə* 'bamboo'

Preinitial v-

With 23 instances with different initials, preinitial *v-* has a wide distribution, attested instances listed in Table 3.33. The distribution of the preinitial is morphologically motivated. The preinitial *v-* occurs in the third person inverse of the verb paradigms due to the presence of the inverse prefix *v-* (see §4.3.3.2). The preinitial *v-* cannot appear together with nasals or bilabial stops at the initial position. Also, the preinitial is pronounced as [f] when preceded by unvoiced initials: *vkʰə* [fkʰə] 'to be full'. Because of this, [f] and [v] are treated as manifestations of the same preinitial occurring in complementary distribution. In other words, the preinitial assimilates to the following initial consonant. As its distributional restrictions, preinitial *v-* never occurs with nasal and labial initials, nor is it attested with the retroflex initials *ʈʂ*, *ʈʂʰ*.

Table 3.33. C_pC_i clusters with the preinitial *v-*

Cluster	Example 1	Example 2
vt	*v-tə* 'to dance' NPST	*vtəl* 'to vanquish, subdue' NPST
vtʰ	*v-tʰi* 'to drink' NPST	*-vtʰəl* 'to vanquish, subdue' PST
vd	*v-dæ* 'to do'	*vdə* 'demon, ogre'
vk	*-vkə* 'to be full (food)' PST	*-v-ko* 'to give' PST
vkʰ	*vkʰə* 'to be full (food)' NPST	*v-kʰo* 'to give' NPST
vg	*vgær-ʑa* 'pork with the legs'	n/a
vq	*v-qe* 'to herd' (animals) NPST	*v-qo* 'to tear off' NPST
vqʰ	*-v-qʰe* 'to herd' (animals) PST	*-v-qʰo* 'to tear off' PST
vts	*-v-tsʰəu* 'to slice vegetables' PST	*vtsar* 'to rust'
vtsʰ	*v-tsʰəu* 'to slice vegetables' NPST	*vtsʰe* 'to be rich, wealthy' NPST
vdz	*vdzæ-væ* 'old man'	*vdzi* 'man, person'
vtɕ	*vtɕə* 'mouse'	*-v-tɕi* 'to open, unlock' PST
vtɕʰ	*-v-tɕʰi* 'to ride' PST	*v-tɕʰi* 'to open, unlock' NPST
vdʑ	*vdʑæ* 'friend'	*vdʑo* 'bird'
vɖʐ	*v-ɖʐa* 'to saw into blanks'	*v-ɖʐəl* 'to make noodles (in a rolling machine)'
vs	*-v-sæ* 'to kill' PST	*v-se* 'to know' NPST
vsʰ	*v-sʰæ* 'to kill' NPST	*vsʰə* 'blacksmith'
vz	*vzə* 'to fix, repair'	*væ-**vzə*** 'mating of pigs'
vɕ	*vɕæ* 'to speak'	*vɕe* 'to want, need'
vɕʰ	*v-ɕʰa* 'to take, snatch' NPST	*vɕʰə* 'seed'
vʑ	*vʑær* 'to shave' (beard, head)	*v-ʑə* 'to sow'
vx	*v-xuə* 'to wear' (e.g. shoes)	n/a
vɣ	*v-ɣa* 'to take the lid off'	*vɣi* 'to be arrogant and think high of him/herself'

Preinitial s/z-

Geshiza has 21 s/zC_p clusters, listed in Table 3.34. Similar to the previously introduced preinitial *v-* with an allophone [f], at the preinitial position of a cluster, the phonemes *s-* and *z-* do not contrast, but occur in complementary distribution. While *s-* occurs with unvoiced initials, *z-* occurs with their voiced counterparts. The nasals diverge from this pattern, requiring the unvoiced preinitial *s-*. Establishing *s-* as the basic form already present in Proto-Trans-Himalayan, the emergence and distribution of the preinitial *z-* can be explained by the following historical assimilatory process: *s- → z- /_[obstruent] [+voiced].

Table 3.34. C_pC_i clusters with the preinitial *s/z-*

Cluster	Example 1	Example 2
sm	*smæn* 'medicine, fertiliser'	*sme* 'woman'
sn	*sni* 'nose'	*snote* 'story'
sɲ	*sɲi* 'seven'	*sɲɔva* 'fishbone'
sŋ	*sŋar* 'frost'	*sŋi* 'to listen'
sp	*spa* 'to be thirsty' NPST	*spo* 'to dry' NPST
sp^h	*-sp^{h}a* 'to be thirsty' PST	*-sp^{h}o* 'to dry' PST
st	*-stæ* 'to finish' PST	*stɔ* 'tiger'
st^h	*st^{h}æ* 'to finish' NPST	*st^{h}or* 'trap (for animals)'
sk	*skæ* 'language'	*skælo* 'strap'
sk^h	*sk^{h}ərɐ* 'to shout' NPST	*sk^{h}uæ* 'to cut' NPST INTR
sq	*sqə* 'to go bad' (food) NPST	*sqɔ* 'fire tongs'
sq^h	*sq^{h}a* 'roots'	*-sq^{h}ə* 'to go bad' (food) PST
stɕ	*stɕær* 'to get scared' NPST	*stɕəqo* 'fire hook'
stɕ^h	*stɕ^{h}ək^{h}i* 'to watch' NPST	*stɕ^{h}u* 'plough blade'
sx	*s-xuə* 'to put shoes on someone'	n/a
zb	*zbə* 'to pile'	*zbəu* 'to soak (in water, e.g. when washing clothes)'
zd	*zda* 'memory, auxiliary verb'	*zdəu* 'to marry'
zg	*zga* 'saddle'	*zgæjæl* 'curtains'
zdʑ	*zdʑər* 'to change'	*zdʑo* 'peach'
zv	*zvæ* 'to spread out (e.g. manure)	*zvær* 'to light, kindle'
zɣ	*zɣæ* 'to open' (e.g. mouth)	*zɣæde* 'three days from now'

Preinitial x/ɣ-

Geshiza has 20 x/ɣC_p clusters, listed in Table 3.35. Like the cases of *v-* with the allophone [f] and the preinitial *s/z-, x* and *ɣ* exist in complementary distribution in the preinitial position. While the variant *x-* precedes unvoiced initials, the variant *ɣ-* is followed by their voiced counterparts, save the two gaps where *ɣdz* and *ɣdʑ* are absent. Also, nasal initials require *ɣ-*, mirroring the occurrence of *s*, rather than *z*, as a preinitial with nasals discussed previously.

Table 3.35. C_pC_i clusters with the preinitial *x/ɣ-*

Cluster	Example 1	Example 2
xp > *a̱p*	*a̱pi* 'saying, to copy' NPST	*a̱pən* 'leader, boss'
xp^h > *a̱p^h*	*-a̱p^{h}i* 'to copy' PST	n/a
xt > *a̱t*	*-a̱ta* 'to get stuck' PST	*a̱to* 'scripture recitation'
xt^h > *vt^h*	*a̱t^{h}a* 'to get stuck' NPST	*a̱t^{h}ə* 'buttocks'
xts > *a̱ts*	*a̱tso* 'to speak too much' NPST	*a̱tsoŋ* 'to be clean' NPST
xts^h > *a̱ts^h*	*-a̱ts^{h}o* 'to speak too much' PST	*-a̱ts^{h}oŋ* 'to be clean' PST
xtɕ	*xtɕænzæn* 'wild animal, beast'	n/a
xtɕ > *a̱tɕ*	*a̱tɕe* 'to love, be fond of' NPST	*a̱tɕil* 'middle'
xtɕ^h > *a̱tɕ^h*	*-a̱tɕ^{h}e* 'to love, be fond of' PST	n/a
xs	*xsærpo* 'yellow'	n/a
xs > *a̱s*	*a̱sær* 'gold'	*a̱sə* 'to be tight' NPST
xs^h > *a̱s^h*	*a̱s^{h}u* 'anus'	*-a̱s^{h}ə* 'to be tight' PST
xɕ > *a̱ɕ*	*a̱ɕær* 'to pass, go by' NPST	*a̱ɕə* 'to break' NPST
xɕ^h > *a̱ɕ^h*	*-a̱ɕ^{h}ær* 'to pass, go by' PST	*-a̱ɕ^{h}ə* 'to break' PST
ɣm > *a̱m*	*a̱məmə* 'to discuss'	*a̱mo* 'mouth'
ɣn > *a̱n*	*a̱na* 'past'	*a̱næ* 'to be dark'
ɣɲ > *a̱ɲ*	*a̱ɲen* 'betrothal'	*a̱ɲæn-s^{h}i* 'old holy tree'
ɣb > *a̱b*	*a̱bæle* 'club, to club'	*a̱bu* 'sand'
ɣd > *a̱d*	*a̱di* 'to be mistaken, wrong'	*a̱du* 'umbrella'
ɣv > *a̱v*	*a̱værvi* 'bat'	*a̱vi* 'to heal'
ɣz > *a̱z*	*a̱zæn* 'monk robe'	*a̱zupo* 'body'
ɣʑ > *a̱ʑ*	*a̱ʑə* 'to break' (stick-like objects)	*a̱ʑi* 'bow'

The actual phonological realisation of the preinitial is largely vocalic, close to the phoneme /a/, yet never syllabic. Geshiza speakers have intuitive knowledge about this, and report as incorrect instances in which the preinitial is pronounced as a full, separate syllable. In few attested instances of Tibetan loanwords, however, a full consonantal realisation of the cluster has been retained: *xtɕænzæn* 'beast (archaic term)' < Tib. *gcan gzan* 'beast', *xsærpo* 'yellow' < possibly Tib. *ser po* 'yellow', yet the preinitial remains unexplained. It thus seems

that a change in the realisation of the clusters has taken place, possibly quite recently, having only covered the majority of cases. For comparison, Duo'erji (1997) reports such clusters with their consonantal forms. Against this backdrop, as a slight compromise from a strict phonological representation towards showing the actual pronunciation, the preinitial is *x/ɣ-* written as *a̯-* in this grammar, except in the two loanwords where it has retained the fully consonantal pronunciation. The IPA diacritic *x̯* in this form represents the non-syllabic nature of the preinitial with a vowel-like realisation.

Typological remark

Vocalisation of back consonants in cluster-initial positions is attested in other contexts. For instance, the reconstructed three Proto-Indo-European 'laryngeals' become frequently vocalised or deleted altogether in daughter languages when they occur as the first member of a word-initial consonant cluster: *$h_2$stḗr 'star' > *astḗr* 'star' (Greek); *stēlla* 'star' (Latin); *staírno* (Gothic) (Tichy 2004: 33-34; 2006: 30).

3.3.3.2. C_i C_m clusters

Geshiza allows three medial consonants: *-r, -l, -j,* forming 39 distinct C_i C_m clusters illustrated in Table 3.36 below. The medials only occur with initials from the subgroups of plosives, fricatives, and approximants while affricates and nasals are absent. Also, when in C_i C_m clusters, the initial *ɣ-* is frequently pronounced in a vocalised form, written here as *a̯* (see the discussion of the preinitial *x/ɣ-* in §3.3.2.1).

Table 3.36. Attested C_i C_m clusters

C_m	Ci																		
	p	p^h	b	t	t^h	d	k	k^h	g	q	q^h	v	s	s^h	z	(ɣ)	r	l	w
r	*pr*	*p^hr*	*br*				*kr*	*k^hr*	*gr*	*qr*	*q^hr*	*vr*	*sr*		*zr*	*(ɣr)*			*wr*
l			*bl*						*gl*	*ql*	*q^hl*	*vl*	*sl*		*zl*	*(ɣl)*	*rl*		*wl*
j	*pj*	*p^hj*	*bj*	*tj*	*t^hj*	*dj*	*kj*	*k^hj*				*vj*	*sj*	*s^hj*	*zj*	*(ɣj)*	*rj*	*lj*	*wj*

Medial -r

Geshiza has 13 C_ir clusters, listed in Table 3.37:

Table 3.37. C_i C_m clusters with the medial *-r*

Cluster	Example 1	Example 2
pr	*-prə* 'to explain' PST	*-pru* 'to be white' PST
p^{h}r	*p^{h}rə* 'to explain' NPST	*p^{h}ru* 'to be white' NPST
br	*brəwa* 'taste, flavor'	*bri* 'leash'
kr	*-kræ* 'to solidify, freeze' PST	*bə-**kru*** 'firefly'
k^{h}r	*k^{h}ræ* 'to solidify, freeze' NPST	*k^{h}rə* 'bed'
gr	*græpa* 'novice'	*groŋ* 'village'
qr	*qru* 'I break' NPST	*qrə* 'horns, antlers'
q^{h}r	*-q^{h}ru* 'I broke' PST	n/a
vr	*v-ra* 'to hit, light verb'	*v-rə* 'to buy'
sr	*sræn* 'otter'	*srəmbo* 'ogress'
zr	*zra* 'to be shy' (children)	*zrə* 'broom'
ɣr > *ʁar*	*ʁarara* 'to fight'	*ʁarə* 'to bark' (dogs)
wr	*wrə* 'water'	*wre* 'to be hot, many'

Medial -l

Geshiza has 10 C_il clusters, listed in Table 3.38:

Table 3.38. C_i C_m clusters with the medial *-l*

Cluster	Example 1	Example 2
bl	*blə* 'go away and disappear from view'	*blæ* 'thigh'
gl	*gle* 'ideophone'	n/a
ql	*ɕ^{h}ua-**qlə*** 'midnight'	*qlo* 'valley'
q^{h}l	*-q^{h}lu* 'I divided' PST	n/a
vl	*vle* 'corvée labour'	*s^{h}ævle* 'house building'
sl	*slə* 'ladder, stairs'	*sluva* 'Moon'
zl	*zlæɕ^{h}ɔ* 'leap month'	*zli* 'bolt, to bolt the door'
ɣl > *ʁl*	*ʁla* 'salary, to rent, hire'	*ʁalə* 'mountain song'
rl	*rloŋ* 'intestinal track disease'	*rloŋrta* 'prayer flag'
wl	*wlan* 'to be stable, straight and honest'	*wlæ* 'wind'

Instances of the voiceless and voiced lateral fricatives [ɬ] (Figure 3.16 on the following page) and [(z)ɮ(d)] (Figure 3.17 on the following page) are phonologically interpreted as medial *l-* clusters: These medial clusters *sl* and *zl* deserve careful examination. As argued in this chapter, Geshiza lacks lateral fricatives at the phonemic level. Nevertheless, they appear in the language at the phonetic level. Examining and evidence from consonant phonotaxis, Tibetan loanwords, and language history the following conclusions can be drawn.

First, establishing [ɬ] as an independent phoneme would lead to major irregularities in Geshiza phonotaxis. To illustrate, since the hypothetical phoneme /ɬ/ cannot form consonant clusters, it would thus constitute an exception to the statement that every phonemic consonant can occur as an initial C_i in a N_pC_i cluster (see the discussion on the preinitial *N-* in §3.3.3.1). Second, if [ɬ] were phonemic in Geshiza, one would expect it to appear in Tibetan loanwords, a phenomenon attested in Stau. Against the expectations, Tibetan loanwords originally containing the voiceless lateral fricative frequently appear with /ɕ^h/ in Geshiza: Tib. *lha sa* 'Lhasa' > *ɕ^{h}æsa* 'Lhasa, Tibet in general'; Tib. *lha mo* 'personal name' > *ɕ^{h}æmu* 'personal name'. Third, while not particularly relevant for synchronic phonology, some instances of [ɬ] can be traced back to Proto-Trans-Himalayan *sl, as Geshiza *slu-va* [hɬuva] < *s/g-la 'Moon'. Consequently, [ɬ] often preceded by a weak voiceless glottal fricative in the form of [(h)ɬ] is best interpreted as a consonant cluster where [h] can be interpreted as a highly specific allophone of /s/.

In a similar fashion, the voiced lateral fricative [ɮ] that is also pronounced with a preceding z-like and following d-like element in the form of [(z)ɮ(d)ə] is phonologically a cluster. First, like the case of [ɬ], a phonemic interpretation for [ɮ] would create irregularities in Geshiza phonotaxis. While the hypothetical phoneme would be compatible with the preinitial *N-* in the N_iC_m cluster type, no other cluster types are allowed. Such behaviour would make the distribution of the proposed phoneme /ɮ/ distinct from other consonant phonemes in the language. Second, a subset of causatives, such as *z-lə* [(z)ɮ(d)ə] 'to boil' are best explained as regular formations with the causative prefix *s/z-*. To illustrate: *s-* 'causative prefix' + *lə* 'to boil INTR' > *z-lə* 'to boil TR' (see §6.2.3.4 for the distribution of the causative prefix allophones). The causative prefix *s/z-* thus provides further evidence for the interpretation of [ɮ] as a C_iC_m cluster *zl*.

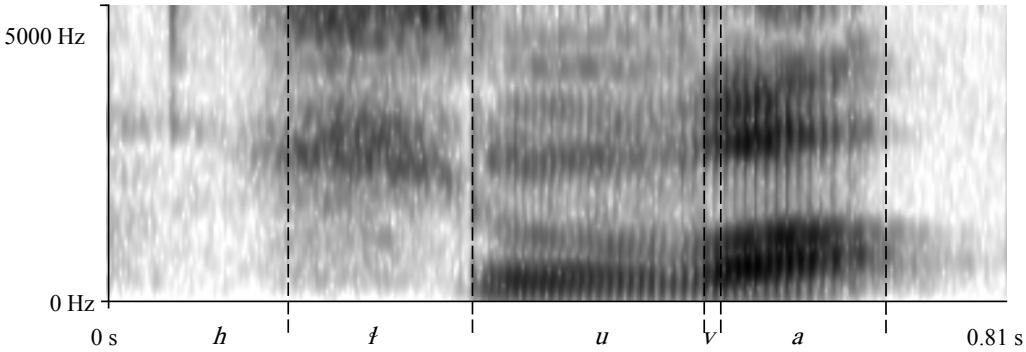


Figure 3.16. *slu-va* [hɬuva] ‘Moon’

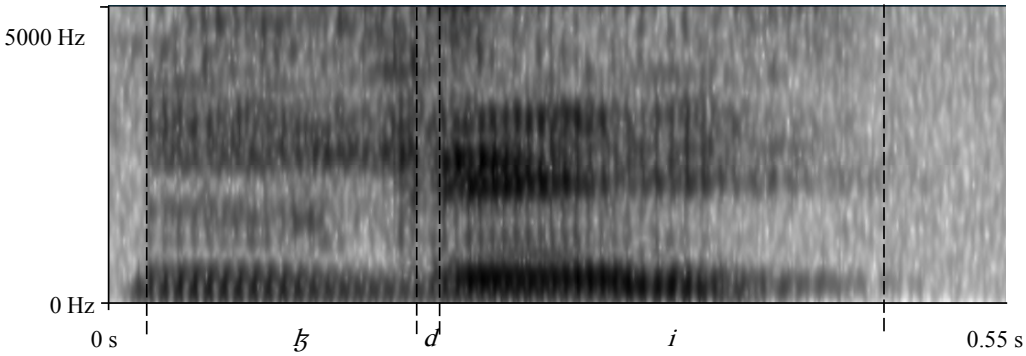


Figure 3.17. *zli* [ɮdi] ‘musk deer’

Medial -j

Geshiza has 16 C_ij clusters, listed in Table 3.39:

Table 3.39. C_i C_m clusters with the medial *-j*

Cluster	Example 1	Example 2
pj	*-pje* 'to escape' PST	*pja* 'to cut' (wood) NPST
p^{h}j	*p^{h}je* 'to escape' NPST	*p^{h}jəpo* 'rich person'
bj	*bjæno* 'meat'	*bji* 'to be high, tall'
tj	*tje* 'to become, be enough' NPST	n/a
t^{h}j	*-t^{h}je* 'to become, be enough' PST	n/a
dj	*dja~dja* 'ideophone'	n/a
kj	*kjo* 'to be angry' NPST	*-kju* 'I dried in the Sun' PST
k^{h}j	*k^{h}ji* 'pigeon, dove'	*k^{h}ju* 'I dry in the Sun' NPST
vj	*rævji* 'to sew'	n/a
sj	*sjəu* 'flute'	*-sji* 'to plough' PST
s^{h}j	*s^{h}əs^{h}ji* 'to think, ponder'	*s^{h}ji* 'to plough' NPST
zj	*zjə* 'to sell'	*zji* 'to teach'
ɣj > *ʑj*	*ʑjær* 'to be good'	*ʑjə* 'fish'
ɾj	*ɾjəu* 'wife, steady female partner'	*ɾji* 'horse'
lj	*lji* 'to be short'	*lji* 'to wait'
wj	*wjə* 'to be hungry'	n/a

3.3.3.3. $C_pC_iC_m$ clusters

$C_pC_iC_m$ constitutes the maximal consonant cluster in Geshiza where 48 instances of the type are attested in the source materials. In other words, three adjacent consonants form a phonotactic limit that cannot be exceeded. Sun (2000b: 214-215) shows that in Shangzhai, a phonologically conservative Horpa lect related to Geshiza, even four-member clusters exist. It remains to be seen whether these highly complex clusters constitute a later innovation or whether some clusters present in Proto-Horpa have been simplified in Geshiza, yet retained in Shangzhai. The attested three-member consonant clusters of Geshiza illustrated in Table 3.40:

Table 3.40. Attested $C_pC_iC_m$ clusters

C_p	C_m		
	-r	-l	-j
N-	*ŋkr, ŋk^{h}r, ŋgr, nzr*	*ɴql, ɴq^{h}l*	*ntj, nt^{h}j, ndj, nsj, ns^{h}j, nzj*
m-	*mpr, mp^{h}r, mbr, mk^{h}r, mgr*	*mbl*	
v-	*vkr, vk^{h}r, vgr, vqr, vq^{h}r*	*vql, vq^{h}l*	*vkj, vk^{h}j, vzj*
s/z-	*spr, sp^{h}r, zbr, skr, sk^{h}r, zgr, sqr, sq^{h}r*	*zbl, sql, sq^{h}l*	*spj, sp^{h}j, zbj, stj, st^{h}j, zdj*
l-			*lp^{h}j, ltj, lt^{h}j*

Table 3.41 on the following page offers examples of all three-member $C_pC_iC_m$ clusters. Such clusters comprise a preinitial (*N-, m-, v-, s/z-, l-*), an initial (*p, p^h, b, t, t^h, k, k^h, g, q, q^h, z*) and a medial (*-r, -l, -j*). Apart from the fricative z, the allowed initials in $C_pC_iC_m$ clusters are restricted to plosives. Also, no two instances of the liquids (*r, l*) may appear in $C_pC_iC_m$ clusters at the same time. In terms of their word classes, many of the clusters show lopsided distribution by exclusively appearing in verbs.

The allowed three-member consonant cluster combinations are far more limited than the theoretical possibilities. This is because a three-member $C_pC_iC_m$ cluster must simultaneously fulfil the phonotactic conditions for both C_pC_i and C_iC_m clusters. In other words, taking the C_i initial consonant as the starting point, a well-formed three-member cluster $C_pC_iC_m$ must simultaneously adhere to the phonotactical restrictions the initial C_i imposes on allowed preinitials and medials. This, however, is merely a necessary, but not a sufficient condition. For instance, among others, the initial *g* combines with the preinitial *m-*: mg. At the same time, both medials *-r* and *-l* cooccur with the initial: *gr, gl*. Notwithstanding, only the three-member $C_pC_iC_m$ cluster *mgr*, not **mgl*, exists in Geshiza. In sum, the distribution of three-member $C_pC_iC_m$ clusters have additional restrictions in Geshiza.

Table 3.41. Examples of $C_pC_iC_m$ clusters listed on the basis of the preinitial

Preinitial	Cluster	Example 1	Example 2
Preinitial	*ŋkr*	*-ŋkræ* 'to shiver' PST	*-ŋkruŋ* 'to reincarnate' PST
N-	*ŋkʰr*	*ŋkʰræ* 'to shiver' NPST	*ŋkʰruŋ* 'to reincarnate' NPST
	ŋgr	*ŋgræl* 'to line up'	*ŋgrə* 'to lean against'
	ɴql	*-ɴqlə* 'to fetch the bride' PST	n/a
	ɴqʰl	*ɴqʰlə* 'to fetch the bride' NPST	n/a
	ntj	*-ntje* 'to hear' PST	*-ntji* 'to choose' PST
	ntʰj	*ntʰje* 'to hear' NPST	*ntʰji* 'to choose' NPST
	ndj	*ndja* 'to learn a lesson'	n/a
	nsj	*-nsje* 'to carry (with a beak)' PST	n/a
	nsʰj	*nsʰje* 'to carry (with a beak)' NPST	n/a
	nʑj	*nʑji* 'to get used to'	n/a
Preinitial	*mpr*	*mprə* 'to take shelter (rain)' NPST	*-mprəu* 'to wear' PST
m-	*mpʰr*	*-mpʰrə* 'to take shelter (rain)' PST	*mpʰrəu* 'to wear' NPST
	mbr	*mbrɛ* 'rice'	*mbru* 'dragon, thunder'
	mkʰr	*mkʰrɐ* 'stairs'	n/a
	mgr	*mgrɐ* 'to feel shy'	n/a
	mbl	*mbla~mbla* 'smooth (and glaring, such as a smooth surface)'	
Preinitial	*vkj*	*-v-kji* 'to dry in the Sun' PST	n/a
v-	*vkʰj*	*v-kʰji* 'to dry in the Sun' NPST	n/a
	vkr	*-v-krə* 'catch, hold' PST	*vkra* 'to be patterned' NPST
	vkʰr	*v-kʰrə* 'catch, hold' NPST	*vkʰra* 'to be patterned' PST
	vgr	*vgrɐ* 'to ache'	n/a
	vqr	*v-qrə* 'to break' NPST	*-v-qri* 'to cut into pieces' PST
	vqʰr	*-v-qʰrə* 'to break' PST	*v-qʰri* 'to cut into pieces' NPST
	vql	*v-qlə* 'to divide' NPST	n/a
	vqʰl	*-v-qʰlə* 'to divide' PST	n/a
Preinitial	*spr*	*spri-lə* 'monkey' (zodiac sign)	*-spro* 'to sprinkle seeds' PST
s/z-	*spʰr*	*spʰrə* 'to scare away' NPST	*spʰro* 'to sprinkle seeds' NPST
	skr	*skræ* 'dowry, inheritance' to give dowry, inheritance money' NPST	*skrə* 'gall bladder'
	skʰr	*skʰræ* 'to give dowry, inheritance money' PST	*skʰrəu* 'ant'
	sqr	*sqra* 'less fine, grit-like' NPST	*sqrə* 'boundary mark'
	sqʰr	*-sqʰra* 'less fine, grit-like' PST	n/a
	sql	*-sqʰlə* 'to be late' PST	*-sqlɔ* 'to swallow' PST
	sqʰl	*sqʰlə* 'to be late' NPST	*sqʰlɔ* 'to swallow' NPST

	spj	*spjælɔ* 'to use' (e.g. money) NPST	*spji* 'to sweep, polish' NPST
	spʰj	*-spʰjælɔ* 'to use' (e.g. money) PST	*-spʰji* 'to sweep, polish' PST
	stj	*-stjəu* 'to insert, stick in' PST	n/a
	stʰj	*stʰjəu* 'to insert, stick in' NPST	n/a
	zbj	*zbjær* 'to affix, put next to'	*zbjoŋ* 'to have diarrhoea'
	zdj	*zdjəu* 'to shaft'	n/a
	zbr	*zbra* 'tent'	*zbri* 'to play' (wind instruments)
	zbl	*zbləu* 'vapour'	n/a
	zgr	*zgra-me* 'enemy'	*zgre* 'star'
Preinitial	*lpʰj*	*tɕʰə-lpʰjəu* 'wave'	n/a
l-	*ltj*	*-ltja* 'to link, connect' PST	*vəu-**ltja*** 'navel, belly button'
	ltʰj	*ltʰja* 'to link, connect' NPST	n/a

3.3.4. Final consonants

Geshiza has a very limited inventory of allowed final consonants and the same restrictions apply to bound and unbound morphemes. In addition to the nucleus vowels terminating a syllable, four consonants can appear in coda position where no consonant clusters are allowed (Table 3.42). A syllable with a final consonant can end in the nasals *-n* and *-ŋ*, and the liquid consonants *-l* and *-r*. Historically, the language also likely contained a final consonant *-w* not present in the current system of final consonants (see §3.2.2 concerning the diphthong /əu/ that reflects the historical final consonant).

Table 3.42. Geshiza final consonants

Final consonant	Example 1	Example 2
-n	*dʑuan* 'you swim'	*smæn* 'medicine'
-ŋ	*ɕoŋ* 'I/we go.'	*ɲoŋ* 'ear'
-l	*ɕʰæl* 'glass'	*mbæl* 'thick mattress'
-r	*ŋær* 'to be strong (alcohol)'	*zdær* 'plate'

Phonologically, the final *-r* coda is realised as a rhotacised vowel and *-ŋ* is occasionally reduced to the nasalisation of the preceding vowel. The nasal coda *-ŋ* only follows the vowels /a, o, u/. Consequently, these vowels could also be interpreted as nasalised vowel phonemes /ã, õ, ũ/, contrasting with their non-nasalised counterparts in the language. This interpretation would eliminate the need for the final nasal *-ŋ*, but at the same time, requires the establishment of a new class of nasalised vowels in Geshiza. The more parsimonious explanation of *-ŋ* as a distinct final consonant has been adopted here.

Tibetan loanwords with consonant codas have been assimilated into Geshiza far more deeply than into the related Stau. Some Stau dialects generally retain the original Tibetan final

consonants regardless of whether the consonant is part of the native final consonant inventory. In contrast, Geshiza allows no exceptions to the native finals listed above. Consequently, every Tibetan loanword with a final consonant must change into one of the allowed native coda consonants. Intensity of interaction can explain this difference: the Geshiza are relatively Sinicised while the Stau receive far more influence from the surrounding Tibetan speakers, leading into greater Tibetan influence into the phonological structure of the Stau language.

A further final consonant *-m* existed in Geshiza, but it has lost its contrastive status, merging the final *-n,* at least in the Geshiza variety described in the present work. For instance, the Tibetan loanword *sram* 'otter' < Tib. *sram* 'otter' is nowadays pronounced as *sræn* in Geshiza. It is likely that the merger of the finals *-m* and *-n* has taken place very recently, since the final *-m* still appears in some elder speakers' speech, yet not contrasting with the final *-n* with which it is always interchangeable. The loss of the final *-m* can be also partly explained by means of Chinese influence. In Sichuanese Mandarin and in Standard Mandarin, the two other languages the Geshiza receive the heaviest exposure from, lack the *-m* coda.

3.3.5. Rimes

Rime (also rhyme) refers to the nucleus and a possible coda consonant of a syllable. Syllable-initial CV sequences have no restrictions for the co-occurrence of vowels and consonants. Vowels with final consonants are nevertheless subject to such restrictions, illustrated in Table 3.43. Besides the final *-n* that can be preceded by all Geshiza vowels, all other final consonants attach only to a subset of the total vowel inventory. This creates a system of 17 full and two marginal codas in the language.

Table 3.43. Co-occurrence of vowels and final consonants in native Geshiza vocabulary

Vowel	Final consonant				
	-n	(-m)	-ŋ	-l	-r
i	*in*				
e	*en*				
æ	*æn*	*(æm)*		*æl*	*ær*
ə	*ən*	*(əm)*		*əl*	*ər*
a	*an*		*aŋ*		*ar*
o	*on*		*oŋ*		*or*
u	*un*		*uŋ*		
ɔ	*ɔn*				

Table 3.44 below lists the available codas in Geshiza. All vowels occur with the final consonant *-n* without distributional restrictions. Most *-Vn* codas arise in the verb paradigms, *-n* being the second person ending of transitive verbs (see §4.3.3). The moribund final consonant *-m* discussed in §3.3.4 can only be preceded by the vowels *æ* and *ə*, many of the instances resulting from borrowing from Tibetan. Only the back vowels *a, o*, and *u* co-occur with the final consonant *-ŋ*. This has direct repercussions for the Geshiza verb system. As mentioned in §3.3.4, the -V*ŋ* codas can be pronounced as nasalised vowels: [ã, õ, ũ]. The final consonant *-l* combines only with the vowels *æ* and *ə*. Many instances of the final *-l* result from Tibetan borrowing: e.g. *vtəl* 'to conquer, vanquish, subdue' < Tib. *bdul* 'ibid'. Finally, rhotacisation, namely r-colouring of a vowel when preceded by the final consonant *-r,* (see §3.4.5).

Table 3.44. Examples of Geshiza coda types with a monophthong nucleus

Coda type	Codas	Example	Gloss
-Vn	*-in*	*rjin*	you wake up
	-en	*sen*	you know NPST
	-æn	*tæn*	very (adverb)
	-ən	*zrən*	you sweep
	-an	*ran*	you hit
	-ɔn	*sqʰlɔn*	you swallow NPST
	-on	*ntɕʰon*	you have NPST
	-un	*wɕun*	you pick up NPST
-Vm	*-æm*	*anæm*	sky
	-əm	*kʰrəm*	punishment
-Vŋ	*-aŋ*	*rtæ-kʰaŋ*	stable (for horses)
	-oŋ	*groŋ*	village
	-uŋ	*kəluŋ*	silver prayer beads
-Vl	*-æl*	*spoɴqæl*	frog
	-əl	*ndəl*	to prepare (sniff) by grinding
-Vr	*-ær*	*ndzær*	nail
	-ər	*gər*	tent
	-ar	*lostar*	small axe
	-or	*bor*	to fall (leaves)

As demonstrated in Table 3.45 on the following page, in comparison to the monophthongs, Geshiza diphthongs have even more limited cooccurrence with the final consonants. The attested six rime types occur predominantly in verb paradigms. Only the final consonants *-n* and *-ŋ* are compatible with diphthongs for forming rimes.

Table 3.45. Examples of Geshiza coda types with a diphthong nucleus

Coda type	Example	Gloss
-uen	*rɣuen*	pillow
-uæn	*kʰuæn*	you cut
-uan	*lxuan*	you appear
-uən	*ŋuən*	you are
-əun	*bəun*	you descend
-uoŋ	*luoŋ*	we hug

3.4. Phonological processes

This section introduces the main phonological processes of Geshiza. The phonological processes concern individual consonants and vowels, and syllables, being discussed in this order herein. Major phonological processes of Geshiza including consonant assimilation and dissimilation (§3.4.1); vowel harmony (§3.4.2); vowel fusion (§3.4.3); vowel backing (§3.4.4); vowel rhotacisation (§3.4.5); vowel epenthesis (§3.4.6); and haplology and deletion (§3.4.7).

3.4.1. Consonant assimilation and dissimilation

Geshiza phonological processes include both consonant assimilation and dissimilation. Nasal assimilation is a phenomenon occurring in Geshiza across morpheme boundaries. The assimilation is anticipatory in nature, and covers the two final nasals *-ŋ* and *-n*. The initial consonants of the following syllable turn the nasals into their homorganic counterparts, as illustrated in Table 3.46 on the following page:

If the nasal assimilation results in two homorganic nasals, the assimilation is further simplified into a single audible nasal, rather than a prolonged nasal (3.9):

(3.9) *roŋ-ntʰu* 'fatty pork in Geshiza style':
[*ron-ntʰu*] > [*rontʰu*], not *[*ron:tʰu*]

gæ-lxoŋ-ɲo 'after I returned (upriver direction)':
[*gæ-lxoɲ-ɲo*] > [*gæ-lxo-ɲo*], not *[*gæ-lxoɲ:o*]

Table 3.46. Examples of nasal assimilation

Assimilation	Base form	Assimilated form	Gloss
n > *m*	*rgən.ba*	*rgəmba*	temple
n > *ŋ*	*ɕʰan.vzə*	*ɕʰaŋvzə*	carpenter
n > *ɲ*	*jon.ji*	*joɲji*	potato
n > *ɳ*	*sæn.ʈsʰa.xo*	*sæɳʈsʰaxo*	place name: *sanchahe*
n > *ŋ*	*smæn.kʰoŋ*	*smæŋkʰoŋ*	hospital
n > *ɴ*	*bələn.qʰua*	*bələɴqʰua*	heavily indebted person
ŋ > *m*	*noŋ.pa*	*nompa*	insider side during an event
ŋ > *n*	*rloŋ.rta*	*rlonrta*	prayer flag
ŋ > *ŋ*	*roŋ.vo*	*roŋvo*	local alcohol
ŋ > *ɲ*	*roŋ.ʑəu*	*roɲʑəu*	still, again
ŋ > *ɳ*	*joŋ.ɖzoŋ*	*joɳɖzoŋ*	Geshiza name
ŋ > *ɴ*	*qloŋ.qloŋ*	*qloɴqloŋ*	totally empty

Dissimilation, an opposite phonological process to assimilation, causes similar phonemes to become less alike in neighbouring segments. In comparison to frequent consonant assimilation discussed above, consonant dissimilation plays a lesser role in Geshiza, but the phenomenon exists at a limited scale. In compounding, the compound noun *wrə-lgo* 'water buffalo' originates from *wrə* 'water' and *rgo* 'cow', *rgo* changing into *lgo* due to the presence of *r* in *wrə*. Also, the addition of the modal enclitic *=mɔ* to a *n*-final verb form occasionally triggers nasal dissimilation in rapid everyday speech, rather than assimilation (3.10):

(3.10) *næ-ŋgən=mɔ.* [*næ-ŋgəl=mɔ*] 'Eat!' (addressing several people)
ɾɲo wə-nɕʰən=mɔ. [*ɾɲo wə-nɕʰəl=mɔ*] 'Throw it into the river!' (several ppl)

3.4.2. Vowel harmony

Vowel harmony plays no prominent synchronic role in Geshiza. Fossilised examples of vowel harmony nevertheless exist in the language. First, the negative prefix *mi-* changes into *mu-* predominantly with the verb *vdo* (V4) 'to see' that contains a back vowel. Second, the historical repetitive suffix *-lV ~ -rV* (see §6.2.3.10) alternates its vocalisation to *grosso modo* harmonise with its host. Third, as discussed in §3.2.1, when followed by C*æ,* the marginal vowel /y/ appears in few instances where it may be thought as a marginal case of regressive harmony*:* *dʑy(w)æ* 'fox' and *kʰytæ* 'sack'.

Vowel harmony may have played role in Old Geshiza and proto-Horpa. Gates and Kim (2018) argue for the existence of vowel harmony in the related Stau language where they posit a system of four vowel pairs undergoing regressive fronting-backing/height vowel harmony: i/ə, e/ɛ, æ/ɑ, u/o. Lexemes lacking harmony, e.g. in the shape of *CæCa* and *CaCæ* are not well

attested in the language.

Geshiza lacks such synchronic pairing of vowels. This may originate from several reasons, one possibility being historical sound changes that have happened both Eastern and Western Geshiza, albeit differently. When comparing Geshiza and Stau, it must be borne in mind that at the current stage, the vowel systems of the two languages differ considerably. To illustrate how contemporary Geshiza lacks any major vowel harmony vis-à-vis Stau, the pattern *CæCa* is common in Geshiza: cf. Stau *kʰævæ* 'snow', Geshiza *ŋkʰæva* 'snow'. Also, *eCe* harmony in Stau is absent in Geshiza: Stau *rekwe* 'foal', Geshiza *ræ-kwe* 'foal'.

Nevertheless, Geshiza vowels do not appear freely in bisyllabic native lexemes. Table 3.47 shows the most prominent lacking vowel combinations in the language together with existing patterns in morphologically non-compositional words at the present stage. For instance, like *CaCæ* in Stau, *CaCæ* does not exist in great number in Geshiza. Tibetan and Chinese loanwords generally lack the listed restrictions, similar to Gates and Kim's report on Stau.

Table 3.47. Lacking and existing vowel combinations in Geshiza bisyllabic words

Lacking	Existing	Example	gloss
iCe	iCi	*ɕʰiɕʰi*	slowly
eCi	eCe	*ạmele*	noodles
aCæ	æCæ	*zgæjæl*	curtains
iCæ	eCæ	*nrekær*	to take turns
eCə	iCə	*rdivə*	bullet

In sum, the marginal phenomena in Geshiza and restrictions in vowel distribution can be interpreted as weak evidence for vowel harmony as a historical process, but more historical-comparative research is needed to settle the issue of vowel harmony in the history of Horpa languages. As a productive process, the evidence for positing synchronic vowel harmony in Geshiza is insufficient.

It should be noted that Geshiza exhibits vowel alternation in which a subset of nouns possesses a compound stem for compounding and derivation with distinct vocalisation (see §4.2.5 for a dedicated treatment). For instance, in diminutive formation with the diminutive suffix *-zi*, *va* 'pig' changes into its compound stem form *væ-*: *væ-zi* 'piglet'. This largely historical vowel assimilatory process is nevertheless lexeme-specific, not an automatic morphophonological operation.

3.4.3. Vowel fusion

Vowel fusions take place when two vowels, viz. V_1 and V_2, collide. The fusion happens both historically, as it is fossilised in argument indexation system of Geshiza verbs, and synchronically across morpheme and word boundaries. Outside the verbal system where it is

always compulsory, the vowel fusion typically occurs in rapid, natural speech, mostly in the context of core case enclitics (see §5.3). If the speaker articulates slowly and carefully, the optional vowel fusion generally fails to emerge.

Table 3.48 below illustrates the prominent vowel fusion patterns in Geshiza. Since only the vowel *æ* may begin a syllable, save in interjections and hesitation that stand phonologically independent, the existing patterns of vowel fusion in Geshiza are limited.

Table 3.48. Vowel fusion in Geshiza

V_1	V_2	
	u	*i*
i	*u*	*i*
e	*əu*	*e*
æ	*əu*	*ɛ*
a	*əu*	*ɛ*
ə	*u*	*i*
ɔ	*əu*	*ɛ*
o	*o*	*(u)e*[32]
u	*u*	*(u)i*

Vowel fusions with a diphthongs as V_1 follow the same patterns as monophthongs. Only the rightmost vowel fusions: e.g. *uæ-u > uəu* follows the same pattern as *æ-u.* It is worth noting, however, that long vowels resulting from vowel fusion are simplified, since Geshiza lacks phonemic vowel length: e.g. *uə-u > uu > u*; *əu-u > əu.* The only attested pattern where a wit : *əu-i > e*,

Major domains of vowel fusion

Case enclitics required by noun phrase syntax frequently trigger optional vowel fusion in Geshiza, as illustrated in (3.11). The genitive case enclitic *=je* behaves identically to V2 *i*, and the ergative case enclitic *=wo* behaves identically to V2 *u.* In addition, argument indexation of verbs often leads into compulsory vowel fusion, as illustrated in (3.12). The relatively complex patterns of argument indexation are discussed in detail in §4.3.3.

(3.11) Vowel fusion with case enclitics:

rqua=je	>	*rquɛ*	'throat.gen'
spo=je	>	*spɛ*	'grassland.GEN'
tsələ=wo	>	*tsəlu*	'cat.ERG'

[32] The cases *(u)e* of *(u)i* and are discussed in the context of verb morphology (§4.3.3.3).

(3.12) Vowel fusion in argument indexation:

tsa-u	>	*tsəu*	'I drop'
zji-u	>	*zju*	'I teach'
nzæla-i	>	*nzæle*	'you (SG) plaster'

3.4.4. Vowel backing

When a C_pC_i cluster with a velar commonly realised in a vowel-like form follows a vowel, the vowel is backed into /ɔ/ irrespective of its quality (3.13). This frequently happens with verbal prefixes, e.g. the orientationally neutral perfective *dæ-*, but compounding follows the same pattern. As discussed in (§3.2.1. *Open-mid back rounded vowel* /ɔ/), the backing results from a sound change monophthongising the sequences *Vɣ and *Vx via *Vw.

(3.13)

dæ-ʐɕʰə	>	*dɔ-ɕʰə*	S/he/it/they broke (it).
va-ʐsʰu	>	*vɔ-sʰu*	'type of sausage'
qa ʐtɕil	>	[qɔtɕin]	'middle of a mountain'

3.4.5. Vowel rhotacisation

From a phonetic viewpoint, Geshiza possesses four rhotacised vowels: [ə˞; a˞; æ˞; ɔ˞], illustrated in Table 3.49. The rhotacised vowels with r-colouring do not constitute phonemes of their own right. Instead, rhotacisation of a vowel is caused by the following rhotic consonant /r/, as a result of which the rhotacisation is interpreted as an allophone of /r/ (see §3.1.5. *Allophones of* /r/). This interpretation explains the phenomenon most parsimoniously, since under the interpretation, no new class of phonemic rhotacised vowels is needed in Geshiza.

Table 3.49. Rhotacisation of vowels in Geshiza

Rhotacised vowel	Example 1	Example 2
æ˞	*mkʰær* [mkʰæ˞] 'traditional tower'	*zdær* [zdæ˞] 'plate'
ə˞	*zər* [zə˞] 'corner'	*smər* [smə˞] 'smell'
a˞	*sʰə-var* [sʰə-va˞] 'tree branch'	*zjar* [zja˞] 'heart'
ɔ˞	*qʰor* [qʰɔ˞] 'to snore'	*vdzor* [vdzɔ˞] 'wing'

3.4.6. Vowel epenthesis

To ease the pronunciation of a r_pC_i consonant cluster, a non-syllabic prothetic vowel ᵊ is sometimes inserted at the beginning of the word-initial consonant clusters beginning with the preinitial *r-*, illustrated in Table 3.50. The prothetic vowel is attested in the clusters *rɲ, rg,* and *rj* in the source materials. Its actual realisation varies, both on the basis of the host word and across separate utterances of the same lexical item. For the sake of convenience, the central vowel schwa is chosen as the standard representation.

Table 3.50. Vowel epenthesis in Geshiza

Phonological form	Phonetic realisation	Gloss
/rgeva/	[rgeva] ~ [ᵊrgeva]	name of prayer recital
/rgəu/	[rgəu]~ [ᵊrgəu]	wheat
/rjɛ/	[rjɛ] ~ [ᵊrjɛ]	eight
/rjə/	[rjə] ~ [ᵊrjə]	hundred
/rŋo/	[rŋo] ~ [ᵊrŋo]	river

In Jiaju Sancun (甲居三村) dialect of Bawang Horpa, an epenthetic vowel has replaced the rhotic that can be reconstructed for the dialect in the light of comparative Horpa data: *rgo > *ᵃgo* 'cow', *rji > *ᵃji* 'horse' (own fieldwork data, 2017). In terms of phonetic deviation from the proto-form, we can thus establish a shared proto-form *rji, an intermediate form /rji/ [(a)rji] attested in Geshiza, and the endpoint of cluster simplification as *ᵃji* in the Jiaju Sanchun lect. Consequently, as a development process, vowel epenthesis in Geshiza appears interwoven with consonant cluster simplification (see §3.5.1).

3.4.7. Haplology and deletion

Haplology refers to the deletion of a syllable when two identical or similar syllables co-occur. In Geshiza, haplology occurs in rapid everyday speech: *mægə-gəɕʰo* > *mægəɕʰo* 'last night', lit. 'yesterday night'. As an exception to this general tendency of haplology, argument-indexing verbal reduplication (§4.3.5.5.) does not allow haplology. Even though the reduplicated part often exhibits reduced pronunciation, its complete deletion would render the reduplicated and non-reduplicated forms identical: compare *dæ-ɕʰə* '(S)he/they/it went', *dæ-**ɕʰə**~ɕʰə* 'They went'.

In compounds, when the left-hand constituent stem ends in *r*, directly followed by a constituent with a preinitial *r*, only one *r* is preserved: **ą̊mær-rmi* 'male facial hair' > *ą̊mær-mi, ą̊sær-rkoŋna* 'gold earrings' > *ą̊sær-koŋna*. As a convention in this grammar, the original *r* from the left-hand constituent is retained in the transcription.

3.5. Variation

Variation in this section refers to differences in form without change in meaning, i.e. free variation that may be social or stylistic, for instance. Major variation in the language concerns consonant cluster simplification in which either full or reduced forms of the clusters may be used (§3.5.1). In addition, in consonant variation, a lexeme has two acceptable and interchangeable forms (§3.5.2). In rhotacism variation, non-rhotaciced vowels substitute for rhotacised vowels (§3.5.3). Finally, in vowel variation, a lexical item has both a monophthongic and a diphthongic variant(§3.5.4).

3.5.1. Consonant cluster simplification

Geshiza is undergoing simplification in consonant clusters. The phenomenon generally affects C_pC_i clusters with the preinitials *r-*, *s/z-* and *x/ɣ-* in rapid everyday speech and $C_pC_iC_m$ clusters in parts of Eastern Geshiza homeland. The two simplification processes differ and are consequently discussed separately below:

C_pC_i cluster simplification

C_pC_i cluster simplification has become noticeable in Eastern Geshiza. In a carefully pronounced citation form, simplification happens with lower frequency, which illustrates that even the young speakers who tend to drop initials in clustered environments are still aware of forms the language community considers standard. Consonant cluster simplification in the current form thus fails to qualify as phonotactic change in the Geshiza consonant system, but it may eventually lead into one in the future. Table 3.51 on the following page illustrates identified cases of C_pC_i cluster simplification.

Simplification mostly concerns nasal and plosive initials C_i, yet occasional cases of affricate initials are also observed. The simplification generally fails to take place in a natural discourse context when a word ending with a vowel precedes the cluster, as shown by the contrast in (3.14) and (3.15):

(3.14) ***mæsti*** *æ-vtɕa* *dæ-dʑi-s^{h}i.*
brothers one-CLF.pair PFV-EXV.3-IFR
There was a pair of brothers. (RN: folktale)

(3.15) *wne=**t^{h}ə*** ***rmæsti=**t^{h}ə*** *dæ-ntanta-s^{h}ə-mə-ræ-jə.*
two=**TOP** **brothers**=TOP PFV-fight.PST.3-IFR-EP-SENS-REP
It is said that the two brothers fought with each other. (RN: folktale)

Initial observations indicate that consonant cluster simplification even in an idiolect is not completely a mechanical phonological process applying constantly universally to all eligible clusters. Instead, certain lexical items have a higher chance for simplification, probably to their high use in everyday speech. For instance, a female habitant of Balang Village in her late thirties pronounces the Tibetan loanword *smæn* 'medicine' with no simplification while the everyday word *smæŋa* 'girl' tends to appear in the simplified form *mæŋa*. Also, the simplification of a certain lexical item also varies between different instances of utterance. Due to these reasons, Table 3.51 is hardly comprehensive. In conclusion, an ongoing phonotactic change is likely in process especially in the speech of younger speakers, but it has not yet come to its end by replacing thus replacing the historical clustered forms that are still considered standard by the community. A dedicated study on this aspect of Geshiza grammar is needed.

Table 3.51. Examples of consonant cluster simplification in Geshiza

Preinitial	Cluster	Full	Simplified	Gloss
r-	*rm*	*rmæsti*	*mæsti*	brothers
	rɲ	*rɲoŋba*	*ɲoŋba*	old
	rŋ	*rŋapa*	*ŋapa*	hunter
	rb	*rbæmæ*	*bæmæ*	rooftop open space
	rd	*rdən*	*dən*	exactly
	rk	*rkəmæ*	*kəmæ*	thief
	rk^h	*rk^{h}o~rk^{h}o*	*k^{h}o~rk^{h}o*	cold
	rg	*rgo*	*go*	cow
	rts	*rtsənk^{h}aŋ*	*tsənk^{h}aŋ*	prison
	rtɕ	*rtɕɔpa*	*tɕɔpa*	faeces
	rdʑ	*rdʑægæ*	*dʑægæ*	male name
l-	*lm*	*lmæ*	*mæ*	3rd person pronoun
	lp^h	*lp^{h}æle*	*p^{h}æle*	patch
s/z-	*sn*	*mə.sni*	*mə.nni*	today
	sn	*bə.sni*	*bə.ssi*	today
	sm	*smæŋa*	*mæŋa*	girl, daughter
	sɲ	*sɲɔva*	*ɲɔva*	fishbone, awn
	sp	*spoɴqæl*	*poɴqæl*	frog
	st	*stema*	*tema*	leftovers
	zd	*zdupa*	*dupa*	pity
	sk	*skærva*	*kærva*	circumambulation
	sk^h	*sk^{h}ərɐ*	*k^{h}ərɐ*	to shout, call
	zg	*zgosrun*	*gosrun*	door guardian deity
w	*wb*	*wbætu*	*bætu*	clay jar
x/ɣ-	*ɣm* > *-a̱m*	*a̱mele*	*mele*	noodles
	ɣn > *-a̱n*	*a̱nænlæn*	*nænlæn*	ceiling
	xp > *-a̱p*	*a̱pældæn*	*pældæn*	Geshiza name
	ɣl > *-a̱l*	*a̱loŋbutɕe*	*loŋbutɕe*	elephant

$C_pC_iC_m$ cluster simplification

In addition, a part of $C_pC_iC_m$ clusters have undergone simplification in parts of Eastern Geshiza homeland. Unlike C_pC_i cluster simplification discussed above where consciousness concerning a standard form exists, $C_pC_iC_m$ cluster simplification has no such standard and the simplified forms are considered equally correct. In the simplification process, a set of $C_pC_iC_m$ clusters simplified into C_pC_i clusters. Of these, the more complex three-member form represent a historically more archaic shape. The circumstances concerning the simplification of the three-

member consonant clusters vary from village to village and also somewhat intergenerationally. The following discussion focuses on Balang Geshiza, but the phenomenon is more widely attested and deserves more research.

The $C_pC_iC_m$ clusters *spj*, *sp^{h}j,* and *zbj* were attested in simplified forms, illustrated with examples in Table 3.52. In addition, *lp^{h}j* simplified into *ltɕ^h* was also attested, yet the simplified form seems to be gaining ground at the expense of the complex cluster: *tɕ^{h}əlp^{h}jəu ~ tɕ^{h}əltɕ^{h}əu* 'wave'. The non-aspirated counterpart *lpj* would be expected to have followed the same trajectory, but is not attested among $C_pC_iC_m$ clusters in the source materials, which hints that the simplified form may already have completely replaced the complex one. Finally, comparative evidence exists that some of the present Balang C_pC_i clusters historically originate from $C_pC_iC_m$ clusters, likely through a phase in which the full and simplified forms coexisted. For instance, *rbji* 'drum' attested in Ke'erjin corresponding to the Balang *rdʑi* 'drum' and *mbju* 'nest' in attested in Dandong corresponding to Balang *mdʑo* 'nest'.

Table 3.52. Cases of $C_pC_iC_m$ clusters simplification in Balang Geshiza

Full $C_pC_iC_m$	Simplified C_pC_i	Example	Gloss
spj	*stɕ*	*spji ~ stɕi*	to sweep
sp^{h}j	*stɕ^h*	*sp^{h}jar ~ stɕ^{h}ar*	sieve
zbj	*zdʑ*	*zbjoŋ ~ zdʑoŋ*	to have diarrhoea

As discussed in §3.3.3, many Geshiza $C_pC_iC_m$ are phonological hapax legomena or occur in two-three lexical items. This makes it challenging to determine whether the simplification is a universal phonological process or takes place on lexical case-by-case basis.

3.5.2. Consonant variation

Several Geshiza consonants that constitute contrasting phonemes appear in free variation at the lexical level. Such variations are here divided into three main types: Syllable-initial *b ~ m* variation, semivowel variation, and Chinese-induced *l ~ n* variation. All of the variation patterns are marginal by affecting few lexical items, never the phonological system itself.

Syllable-initial b ~ m *variation*

The consonants /b/ and /m/ are distinct phonemes in Geshiza: *mæ* 'rain', *bæ* 'Tibetan'. When occurring at the beginning of a syllable in a non-clustered environment, the two nevertheless alternate freely in few specified lexical items, the most important ones being *bəsni ~ məsni* 'today' and *=be ~ =me* 'also, too'. A speaker tends to consistently stick either to the '*b*-form' or '*m*-form' of a lexeme.

Semivowel variation

As discussed in §3.1.5, the semivowels /j/ and /w/ show alternation in few lexical items, such as in *jolva ~ wolva* 'mountainside/up medial location'.

Chinese-induced variation

Analysing the speech of the younger generations indicates that coexistent Chinese in Geshiza ecology has started to affect the phonology of the latter. In rapid everyday speech, some speakers on occasion alternate between /l/ and /n/ that are distinct phonemes in Geshiza. For instance: *loŋ* (standard) ~ *noŋ* (non-standard) 'We apply, 1PL light verb'; *a̱tɕil* (standard) ~ *a̱tɕin* (non-standard) 'middle'; *rkoŋ-na* (standard) ~ *rkoŋ-la* (non-standard)) 'earrings'.

A similar scenario has taken place in the Hong Kong variety of English where the phonemes /l/ and /n/ alternate due to influence from Cantonese where the phonemes have either partially or fully merged (see Setter, Wong, and Chan 2010: 21). Since *l ~ n* variation occurs in the local Sichuanese Mandarin, the alternation pattern in Geshiza appears similarly contact-induced. Nevertheless, all of the findings on this phenomenon build on individual cases with no statistical validity. The phenomenon was attested in the speech of younger speakers who have exposure to Chinese during their lives. Consequently, in tandem with the increased interaction with Han Chinese, especially in villages close to Danba County Town, the alternation will likely gain more ground in the future.

Syllable-final l ~ r variation

The final consonants /l/ and /r/ occasionally alternate in the coda position: *a̱væl* (standard) ~ *a̱vær* (non-standard) 'shaman'. This might also result from Chinese influence, since Chinese lacks an *l* coda, *r* codas being present both in Standard and Sichuanese Mandarin.

3.5.3. Rhotacisation variation

Subsection §3.4.5 introduced rhotacisation as a feature of Geshiza vowels. At the present stage of the language, rhotacisation of *o* appears inconsistently and is thus interpreted as currently eroding. Rhotacisation of *a* and *æ* is also frequently dropped. In contrast, rhotacisation of the schwa *ə* appears more stable. Historically, part of the words that participate in rhotacisation variation inherit their rhotacisation, such as *vʑa ~vʑar* 'warm season' that is a cognate to the Japhug *ʃtɕar* 'summer'. At the same time, some words participating in rhotacisation variation can be shown to originate from sources with no rhotacisation, such as *vtsar* 'to rust' that is likely a loanword from Tibetan *btsa* 'to rust'. For this reason, the historical origins of rhotacisation variation in Geshiza remain unclear. In all, the trends point towards decrease in rhotacisation in Geshiza. Table 3.53 on the following page gives examples of rhotacisation variation in Geshiza.

Table 3.53. Examples of rhotacisation variation in Geshiza

Rhotacised form	Non-rhotacised form	Gloss
q^{h}or	*q^{h}o*	to snore
st^{h}or	*st^{h}o*	trap (for animals)
vtsar	*vtsa*	to rust
vʑar	*vʑa*	warm season
ɑ̱jær	*ɑ̱jæ*	to be good

3.5.4. Vowel variation

Ignoring non-systematic variation in individual lexical items, in five attested cases of nouns, an alternation occurs between a monophthong *-a, -ɛ, -o, u,* and the dipthtong *-əu*, as shown in Table 3.54. The variation does not serve any morphosyntactic function and must be considered phonological. Four of the words, *ɕ^{h}æsa ~ ɕ^{h}æsəu* 'Tibet in general, Lhasa'; *lotɕ^{h}o ~ləutɕ^{h}oŋ* youth; *rgəmba ~ rgəmbəu* 'monastery'; *loŋba ~ loŋbəu* 'valley, plain, place', originating from Tibetan: *lha sa* 'Lhasa'; *lo chung* 'young'; *dgon pa* 'monastery'; *lung pa* 'valley, place', respectively. The two remaining instances occur in native function words, which indicates that the phenomenon cannot merely explained with borrowing.

Historical vowel alternation between a monophthongic and a diphthongic form of a root is visible in few lexical pairs, such as ***ŋk^{h}u****-ma* 'key', ***ŋk^{h}uə*** 'to put in'; *æ-**rgu*** classifier for hits with fist, ***rguə****-lu* 'fist'. Lexically determined vowel variation is distinct from compound stem formation that also results in two alternating forms, since the former belong to the realm of free variation while the latter is a morphophonological process.

Table 3.54. V ~ *əu* vowel variation

Form 1	Form 2	Gloss
ɕ^{h}æsa	*ɕ^{h}æsəu*	Tibet
loŋba	*loŋbəu*	valley, plain, place
lotɕ^{h}oŋ	*ləutɕ^{h}oŋ*	young person
lo*-t^{h}o*	*ləu*	where, from where
rdʑæsla	*rdʑæsləu*	chieftain's palace
rgəmba	*rgəmbəu*	monastery
skɛ	*skəu*	more
xu	*xəu*	to cave in, collapse by caving in

3.6. Suprasegmentals: stress and intonation

This section analyses stress (§3.5.1) and intonation (§3.5.2) in Geshiza. Geshiza lacks grammaticalised contrastive phonemic tone, but tonal phenomena have been reported from the Puxi dialect of the Shangzhai Horpa lect (Sun 2000: 216). Also, the related Lavrung language is generally seen as tonal (Lai: 2013b: 32). Both cases manifest a system of two tonal registers. Geshiza is best characterised as having a 'pitch accent' system that carries no function of distinguishing lexical meaning. Also, particular constructions, such as probabilitative clauses, have distinct phonological patterns discussed below.

3.6.1. Stress

Similar to many genealogically related and unrelated languages of Asia, such as Japanese, Geshiza exhibits an accent system generally known as 'pitch accent' in the literature. Recent research has pointed the existence of 'African-like' tone systems in Qiangic languages, Such features including among others a small tonal inventory (1-2 tones) where tones are primarily level and undergo morphological category effects (Evans 2008). This contrasts with the 'Chinese' or 'East Asian' tonal systems that include both larger tone inventories with contour tones.

Geshiza has no phonemic tone. For instance, the polysemous *lmu* may equally refer to 'I forget', 'hailstone', or 'cockscomb', there being no tonal distinctions between the three. What impedes the interpretation of accent type as a form of tonality is due to the fact that the Geshiza pitch accent generates no lexical contrast between lexical items due to different pitch patterns. Pitch patterns visible in the lexicon of the language cannot be completely predicted from either phonological or semantic factors.

Geshiza pitch accent requires further research with several linguistically aware consultants. The previous investigations have been unsuccessful in recording lexemes with carrier phrases from a sufficient number of consultants who tend to switch into list intonation or abandon the carrier phrases altogether after some time. Van Way (2018: 20) reports a similar issue in his research of Nyagrong Minyag.

Some conclusions can nevertheless be drawn at the present stage. As a general rule, Geshiza stresses the ultimate syllable that is more prominent: *rgæ.**væ*** 'stone', *a̱loŋ.bu.**tɕʰe*** 'elephant'. When adding extra clarity to speech by pronouncing a word carefully in isolation, the ultimate syllable may be lengthened if it is open, i.e. lacking a final consonant.

3.6.2. Intonation

This subsection addresses widely-attested intonation patterns. Intonation is discussed in the context of declarative clauses (3.6.2.1); imperatives (3.6.2.2). In addition, other specific intonation patterns identified in Geshiza are analysed (3.6.2.3).

3.6.2.1. Declarative clause

As illustrated in Figure 3.18 (intonational trend in dashed line) and example 3.16, declarative clauses in Geshiza show fall in pitch towards the end of an intonational unit, a typologically common pattern.

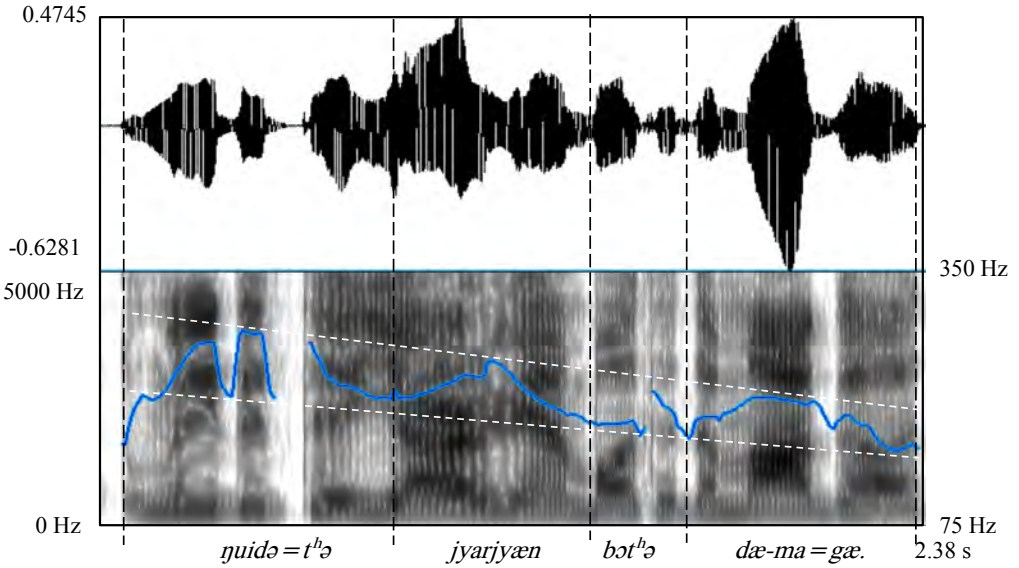


Figure 3.18. Falling intonation in Geshiza declarative clauses

(3.16) *ŋuidə=tʰə* *jyarjyæn* *bɔtʰə* *dæ-ma=gæ.*
past=TOP kindergarten like.that PFV-NEG.EXV=MOD
In the past, there were no kindergartens and like that. (RN: ethnographic description)

3.6.2.2. Imperative clauses

Strong imperatives that are usually short in Geshiza show a rapidly falling intonation pattern in the imperative verb, as in Figure 3.19 depicting example 3.17 shows:

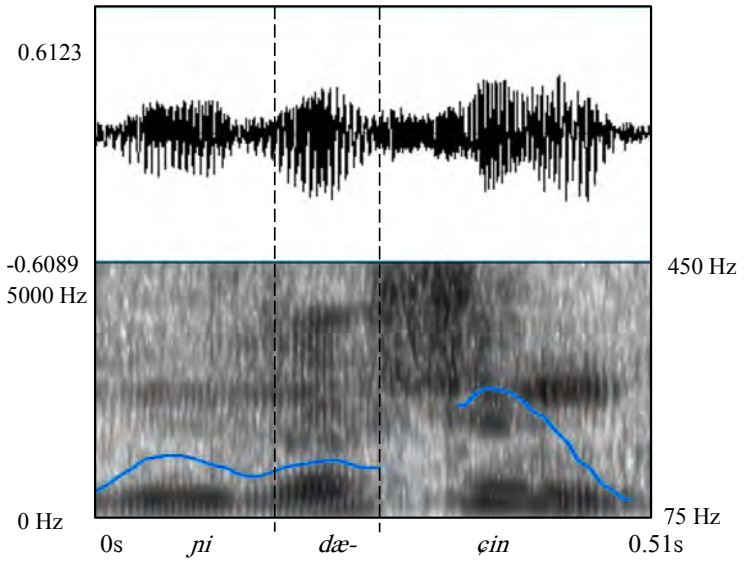


Figure 3.19. Sharply falling intonation in a Geshiza imperative clauses

(3.17) *ɲi* *dæ-ɕin.*
2SG IMP-go.NPST.2
Go away! (OU; commanding a child)

3.6.2.3. Other specific intonation patterns

In addition to clause type specific intonation patterns discussed above, two major intonational phenomena were identified in the source materials. The first concerns prefixed and reduplicated adjectives, while the latter is attested with the probabilitive modal discourse enclitic *=ba*.

Emphasising prefixed and reduplicated adjectives

In prefixed adjectives (see §4.4.2), vowel lengthening accompanied by pitch rising in the prefix is used to emphasise the degree of the adjective. For instance, *gæ-mdze* 'beautiful' pronounced *gæ:^{55}-mdze^{33}*, illustrated in Figure 3.20 below:

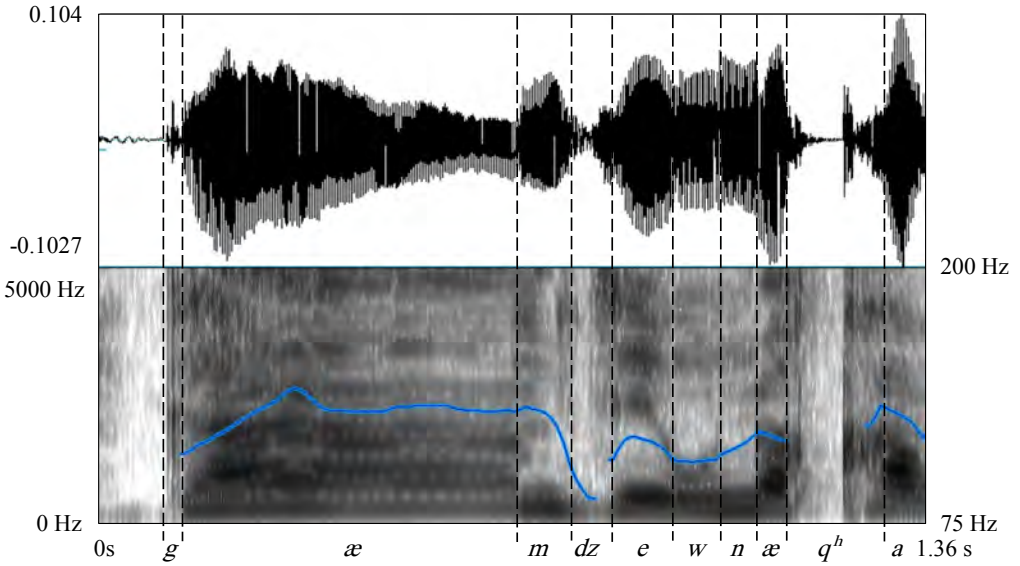


Figure 3.20. Pitch raising and vowel lengthening in emphasised *gæ-mdze* 'beautiful'

Probabilitative enclitic =ba

A strongly falling or rising-falling pitch pattern accompanies the probabilitative enclitic *=ba*. (see §8.6.5. *Epistemic certainty:* =ba *and* =mdɔ). In example 3.18 shown in Figure 3.21, the speaker discusses a bull that has not come back home, reaching the conclusion that the family has probably lost it:

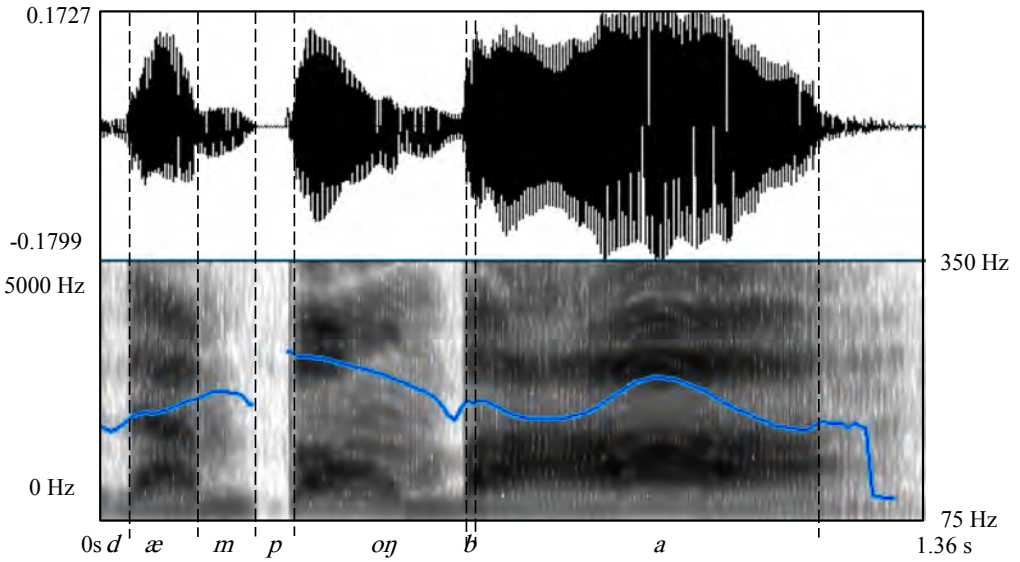


Figure 3.21. Strongly falling pitch pattern with the probabilitative enclitic *=ba*

(3.18) *æ-slə* *mətsʰæ* *gæ-tje* *gæ-mɛ-ʑe*
one-CLF.month more.than IPFV-become.PST.3 IPFV-ASP.NEG-come.3

dæ-mpoŋ=ba.
PFV-lose.PST.1PL=MOD
More than a month has passed and it has not come (back, so) we have probably lost it. (RN: interview)

3.7. Summary

Geshiza phonology is characterised by a large phoneme inventory, especially in the case of consonants. The analysis of this grammar identifies 37 full and 2 marginal consonants. The vowel inventory contains 8 full and 3 marginal vowels. Geshiza consonant system includes aspirated fricatives, a typologically rare phenomenon. In addition, the consonants frequently combine into two- and three-member consonant clusters. No phonemic tone was identified in Geshiza. Finally, the language syllable pattern takes the templatic form (C)(C)(C)V(V)(C) where only the vowel nucleus is compulsory.

CHAPTER FOUR
Word classes

This chapter is an account of the word classes of Geshiza. Clitics, affixes, and process formatives are equally listed in the present chapter, but I discuss their functions in the following chapters in detail. After establishing the existing word classes found in the language, the chapter introduces the non-derivational morphology pertaining to each category. Together with the subsequent chapters on the Geshiza noun phrase (5), and word formation (6), an overall view of morphology in the language is presented, constituting the core of the form-based part in this work and also volume 1 in the printed two-volume edition.

The chapter starts with an overview of Geshiza lexical architecture and necessary definitions (§4.1). The rest of the chapter discusses the identified word classes, clitics, affixes, and process formatives in detail: (§4.2); verbs (§4.3); adjectives (§4.4); pro-forms (§4.5); numerals (§4.6); classifiers (§4.7); postpositions (§4.8); adverbs (§4.9); conjunctions (§4.10); ideophones (§4.11); interjections (§4.12); enclitics (§4.13); affixes (§4.14); and process formatives (§4.15). A summary of the chapter appended at the end (§4.16).

4.1. Outline

This section offers an outline of Geshiza word classes, clitics, affixes, and process formatives. Word classes are defined as categories of the lexicon (i.e., inventory of lexical items) that share morphosyntactic properties and build around a prototype. The term is thus synonymous with the term 'parts of speech' that is also frequently used in the literature and stems from Greek and Latin sources, yet due to its opacity is avoided here (see Haspelmath 2012: 110). Also, because its history and association with generative linguistics where it has a narrower definition, the potentially ambiguous term 'lexical categories' is likewise not used in the present work.

As argued by Schachter and Shopen (2007: 1), word classes must be primarily established on grammatical, not on semantic basis. The authors give distribution range of syntactic functions, and specifiable morphological and syntactic categories as some key grammatical properties for establishing the word class of a lexical item. In practice, however, formal definitions for word classes are often difficult even in well-known languages, which makes the task in describing understudied languages even more challenging.

Defining wordhood

The definition of word classes is itself dependent on the definition of wordhood, a notoriously challenging concept in linguistics. As illustrated by Haspelmath, (2011) typologists have failed to create a cross-linguistically valid definition for word, yet wordhood can usually be defined with a language-specific basis. In Geshiza, I define word as a form that in phonological terms can be uttered in isolation and in morphosyntactic terms can potentially stand independently. In contrast, clitics, and affixes, and process formatives in Geshiza are best defined through a 'via negativa' as all the remaining entities that fail to qualify for wordhood. Reflecting the definition of Bickel and Nichols (2007: 172-173), they cannot govern or be governed by other words, cannot undergo agreement, or cannot head phrases.

Distinguishing clitics, affixes, and process formatives

Defining clitics and distinguishing them from affixes has led to terminological confusion (Spencer and Ruís 2012: 1-6). As a result, the difference between clitics and affixes is nebulous in descriptive grammars. Also, it largely depends on research tradition whether a form is classified as a suffix, or a clitic. I distinguish clitics and affixes in Geshiza by establishing inflection and derivation as the morphosyntactic function of affixes, clitics lacking such functions. Many clitics of Geshiza are 'promiscuous' by attaching to hosts from several categories, such as the case enclitics that take the last word of a noun phrase as their host. Finally, some non-concatenative morphological processes of Geshiza have a function similar to affixes, e.g. inflection. Such processes lacking a form consist of reduplication, aspiration alternation, voicing alternation, and conversion. They are called process formatives in this grammar.

Inventory of word classes, clitics, affixes, and process formatives

Geshiza has eleven word classes: nouns, adjectives, verbs, pro-forms, numerals, classifiers, postpositions, adverbs, conjunctions, ideophones, interjections. The language also has enclitics that operate both at noun phrase or clause level, in the latter case typically adjoining the predicate verb. Affixes in Geshiza contain prefixes and suffixes, both of which appear most prominently with verb hosts. Process formatives occur both with verbs and nouns.

Principle of analysis adopted

In establishing word classes, the researcher may adopt either a 'lumpist' or a 'splittist' approach, depending on whether the emphasis in classification lies on perceived similarity or difference. While trying to find the balance between the two, the approach presented here for Geshiza tilts towards splittism, in the sense that significantly differing morphological behaviour is used to establish separate word classes. Nevertheless, what lumpism gains in simplicity it simultaneously loses in accuracy. For example, the overly vague and broad term 'particles' is avoided in this grammar. Against this backdrop, Table 4.1 on the following page summarises the major word classes, clitics, and affixes, and process formatives in Geshiza.

Table 4.1. Summary of word classes, clitics, affixes, and process formatives in Geshiza

Type	Subcategories
nouns (§4.2)	proper nouns (§4.2.1)
	common nouns (§4.2.1)
verbs	class 1 (§4.3.4.2)
(§4.3)	class 2 (§4.3.4.3)
	class 3 (§4.3.4.4)
	class 4 (§4.3.4.5)
adjectives (§4.4)	prefixed adjectives (§4.4.2)
	reduplicated adjectives (§4.4.3)
	non-marked adjectives (§4.4.4)
pro-forms (§4.5)	personal pronouns (§4.5.1)
	demonstrative pronouns (§4.5.2)
	interrogative pro-forms (§4.5.3)
	reflexive-intensifier and anaphoric PRON (§4.5.4)
	other pronouns (§4.5.5)
numerals (§4.6)	native numerals (§4.6.1)
	Sinitic numerals (§4.6.2)
classifiers (§4.7)	indefinite classifier (§4.7.1)
	sortal classifiers (§4.7.2)
	mensural classifiers (§4.7.3)
	self-referential classifiers (§4.7.4)
	quantifier classifiers (§4.7.5)
postpositions (§4.8)	
adverbs (§4.9)	
conjunctions (§4.10)	
ideophones (§4.11)	
interjections (§4.12)	core interjections (§4.12.1)
	summons and dispersals (§4.12.2)
enclitics (§4.13)	noun phrase enclitics (§4.13.1)
	clause-level enclitics (§4.13.2)
affixes (§4.14)	prefixes (§4.14.1)
	suffixes (§4.14.2)
process formatives	aspiration alternation (§4.3.5.3)
(§4.15)	reduplication (§4.3.6.5)
	voicing alternation (§6.3.3.5)
	conversion (§6.2.4)

Open and closed classes

Except nouns and classifiers, all word classes are synchronically closed. The class of nouns is currently expanding through extensive language contact with Chinese (see §2.8.2; §2.9.4; §14.3.2). Importantly, neither new verb or adverbs are coined through language-internal mechanisms. Besides highly infrequent exceptions, new borrowed verbs do not enter the language as direct insertions. For instance, Chinese verbs are borrowed as nouns into Geshiza (see §14.3.2. *Special characteristics of Chinese loans*), which requires them to be combined with a native light verb, usually *və* (V3b ~ V4) 'to do' (see §4.3.7.1). Also, even though numerals are a closed class, Geshiza has recently borrowed a whole set of numerals, called Sinitic in this grammar (see §4.6.2). Finally, unlike in many previous descriptions of Trans-Himalayan languages, in Geshiza, formal grounds exist for considering adjectives a separate word class. They subbranch into prefixed adjectives, reduplicated adjectives, and non-marked adjectives.

Macro-nominals

Geshiza word classes form a network of relations in which certain classes share more morphosyntactic features with each other than others. As illustrated in Table 4.2 below, nominal properties, such as the ability to host case and number enclitics, participation in compounding, and the existence of a special compound stem, extend beyond core nouns into pro-forms, adjectives, numerals, classifiers, and postpositions. Also, members of these word classes may function as modifiers of a noun phrase, typically in a genitive-like relationship. Against this backdrop. the aggregate of nouns, pro-forms, adjectives, numerals, classifiers, and postpositions is named 'macro-nominals'. No two member categories shares all of their properties, which justifies their separate treatment as individual word classes in the approach of this grammar.

Table 4.2. Nominal properties present in macro-nominals

Category	NP modification	Case	Number	Compounding	Comp. stem
Nouns	✓	✓	✓	✓	✓
Pro-forms	✓	limited	✓	✓	✗
Adjectives	✓	✓	✓	limited	✗
Numerals	✓	✓	limited	✓	✓
Classifiers	✓	✓	✗	✗	✗
Postpositions	✓	limited	limited	✓	✗

Typological remark

Morphological processes in the languages of the world are either concatenative or non-concatenative (Haspelmath 2010: 34). Concatenative morphology strings morphemes together sequentially, contrasting with non-concatenative morphology that includes all other processes lacking such sequentiality. Geshiza lexical categories may be modified both by concatenative and non-concatenative morphology. The former consists of affixation with prefixes and suffixes while the latter includes reduplication, aspiration alternation, voicing alternation, and conversion, namely process formatives in the terminology of this grammar.

4.2. Nouns

This section discusses nouns, the largest word class in Geshiza. Grammatical categories expressed through enclitics, e.g. number and case, are hosted by whole noun phrases, rather than by individual nouns. For this reason, they are discussed in the context of noun phrase syntax (see chapter 5). This section commences with defining nounhood in Geshiza (§4.2.1). Following, nouns are categorised in several ways depending on the classification criteria applied. First, in terms of referentiality, nouns consist of common and proper nouns, a division justified on semantic and morphosyntactic grounds (§4.2.2). Second, from the viewpoint of boundedness, Geshiza nouns are divided into free and bound nouns (§4.2.3). Third, regarding countability, the nominal system comprises countable and uncountable nouns, with some borderline cases in between (§4.2.4). Geshiza nouns lack productive morphological operations, but since a part of the affixes are synchronically relevant, they are equally discussed here (§4.2.5). The section ends with an analysis of stem alternation in nouns (§4.2.6).

4.2.1. Defining nounhood and the question of 'nounoids'

A single morphosyntactic criterion does not suffice to define nounhood in Geshiza, which makes a definition by means of a prototype necessary. Prototypical nouns in Geshiza are defined in distributional and morphosyntactic terms as a word class with the following nine prototypical properties: 1. Nouns assume the grammatical role of subject in the clause (see Givón 2001a: 59) 2. They can modify other nouns, typically in a genitive phrase. 3. Nouns can stand as the head of a noun phrase that is optionally modified, e.g. by adjectives or demonstratives. Nouns host 4. number and 5. case enclitics. 6. Many nouns can be counted with a following classifier phrase. 7. Nouns are subject to compounding (see §6.3). 8. A subset of nouns has a distinct compound stem (see §4.2.5). 9. Only nouns can undergo diminutive derivation (see §6.2.2.1): *mətɔ* 'flower' > *mətɔ-lŋa* 'small flower'; *ŋa* '1SG pronoun' > **ŋa-lŋa*. Not all nouns exhibit the enumerated prototypical features of nounhood. Table 4.3 on the following page rates several instances of nouns in terms of how well they fare in the nounhood test, a higher score indicating closeness to prototypical nounhood. It should be noted that the few offered samples do not represent all possible scenarios in the Geshiza nominal spectrum.

Table 4.3. Examples of Geshiza nouns measured in parameters of nounhood

Features	Core nouns				Locational nouns		Temporal nouns	
	ji	*sni*	*ɣuə*	*mkʰə*	*ŋgərə*	*pʰjə*	*gædə*	*tʰævæ*
	sheep	nose	head	smoke	front	out	morning	now
1. Subject	✓	✓	✓	✓	✗	✗	✗	✗
2. NP modification	✓	✓	✓	✓	✓	✓	✓	✓
3. NP head	✓	✓	✓	✓	✗	✗	✗	✗
4. Number encl.	✓	✓	✓	only PL	✗	✗	✗	✗
5. Case enclitics	✓	✓	✓	✓	limited	limited	limited	limited
6. Classifier phr.	✓	✗	✗	✗	✗	✗	✗	✗
7. Compounding	✓	✓	✓	✓	✓	✓	✓	✓
8. Comp. stem	✓	✓	✗	✗	✗	✗	✗	✗
9. Diminutive	✓	✓	✓	✗	✗	✗	✗	✗
SCORE:	9	8	7	5.5	2.5	2.5	2.5	2.5
PROTOTYPICITY	high							low

The following generalisations arise. First, the function of subjecthood is almost universally shared by Geshiza nouns and is defined as the most focal classificatory feature for nounhood. Consequently, when the function is lacking, an explanation is needed for attributing nounhood to a lexical item. Second, some words exhibiting a range of nominal features, such as number marking, scores low in the test. These words are termed 'nounoids' in this grammar. Analysing the Geshiza nominal system results in identification of two major noun subgroups distant from the prototype sketched above: temporal nouns and locational nouns.

Locational and temporal nouns express place and time, respectively: *ŋgərə* 'front', *kʰæwa* 'side', *tɕægo* 'space in front of the traditional tripod'; *bəsni* 'today', *sʰævi* 'the next year', *tɕæmu* 'a moment ago'. When mapping the Geshiza word classes, the actual location of locational and temporal nouns lies somewhere between nouns and adverbs, making a merger with either group to an extent arbitrary. Temporal and locative nouns diverge from prototypical nounhood by lacking number marking and exhibiting limited case that is typically limited to the unmarked absolutive, genitive and dative.

'Nounoids'

In addition, the grammatical architecture of Geshiza includes syntactically bound forms with noun-like semantics that nevertheless lack independent existence and require a light verb (see §4.3.7.1) or infrequently another fixed verb to be used in discourse. Such forms do not fulfil the criteria of nounhood listed in Table 4.3. above. Also, unlike prototypical nouns, they cannot function as copular complements with the copulas *ŋuə* and *mŋa ~ mja*: *bəʑə ŋuə-ræ* 'It/he is a boy', **tsʰupa ŋuə-ræ* intended meaning 'It is (the feeling of) anger'. Since nominal predication

lies at the core of nounhood, interpreting the discussed forms as nouns would greatly stretch the criteria of what constitutes a noun. In addition to their semantics, however, they also display nominal properties. The light verb *və* 'to do' always occurs with a noun object with which it builds a complex predicate: e.g. *leska və* (work LV:do) 'to work'. As discussed in §4.3.7.1, such cases do not qualify for compounding with a bound stem. Syntactically bound noun-like forms thus behave noun-like in this particular construction. In the literature, forms with similar behaviour have been labelled as 'semi-words' (Bickel and Nichols 2007: 193; Liljegren 2010). In this grammar, I use the term 'nounoid' that emphasises their connection with the word class of nouns. Table 4.4 below provides examples syntactically bound nounoids in Geshiza with their preferred verbs:

Table 4.4. Syntactically bound nounoids in Geshiza

Noun	Gloss	N V Construction	Gloss
gogo	sharing	*gogo və*	to share
ɣoŋɣa	diziness	*ɣoŋɣa dʑi*	to feel dizzy
məulə	barefootedness	*məulə və*	to go barefooted
skoŋ	mating of horses	*skoŋ və*	to mate (horses)
ts^{h}upa	anger	*ts^{h}upa dza*	to be(come) angry

4.2.2. Common and proper nouns

Geshiza nouns consist of common nouns and proper nouns that share the same phonological inventory and syllable structure. Proper nouns distinguish themselves morphosyntactically by commonly not being modified by demonstratives, not hosting number enclitics, and by not being possessed. Rather than being an absolute rule, this is a question of frequency. Forms, such as the possessive *ŋɛ nærdʑæ-ɕ^{h}æmu* (1SG.POSS PN-PN) 'my *nærdʑæ ɕ^{h}æmu* (personal name)' occur in discourse, albeit with low frequency.

In the system of common nouns, the noun *tɕ^{h}æræ* 'object, thing' functions as a generic noun with both concrete (4.1) and abstract senses (4.2), with the capacity to replace other more specific nouns. Often translating as 'something' (positive) and 'nothing' (negative), its semantics also approaches that of indefinite pronouns (see §4.5.5).

(4.1) *ŋa=t^{h}ə* ***tɕ^{h}æræ*** *æ-lə* *<tija>* *van=mdɛ.*
1SG=TOP **thing** one-CLF.INDEF collateral LV:do.1PL=MOD
I (say): 'Let's put a thing as collateral (to obtain a loan).' (RC)

(4.2) ***tɕ^{h}æræ*** *jə-ʑæ* *ma-me* *æ-lə* *vu.*
thing say.3-NMLZ:P NEG-NMLZ:S one-CLF.INDEF LV:do.1SG
I will make him to have nothing to say. (RN: folktale)

4.2.3. Free and bound nouns

In addition to a classification into common and proper nouns discussed above, Geshiza nouns can be classified based on boundedness. Bound roots are defined as basic morphemes sharing all the properties of lexemes except the ability to occur freely (Olsen 2014: 34). Seen against this definition, Geshiza nouns consist of two major subsets: free and bound, bound nouns being further divisible into subgroups. This is illustrated in Table 4.5.below:

Table 4.5. Examples of Geshiza free and bound nouns

Type	Subgrouping	Example	Gloss
Free	Most nouns either of native origin or Tibetan and Chinese loanwords	*məu*	eye
		mts^{h}o	sea < Tibetan *mtsho* 'sea'
		ʈ̪s^{h}etsə	car < Chinese *chēzi* 车子 'car'
Bound	Subset of Tibetan loanwords	*k^{h}ə-, -k^{h}ə*	dog < Tibetan *khji* 'dog'
		rdæ-	stone < Tibetan *rdo* 'stone'
		tɕ^{h}ə-	water < Tibetan *chu* 'water'
	Subset of nouns with historical suffixes (§4.2.4.)	*də-*	tobacco
		ɳɖʐæ-	log
		zdo-	cloud
	Miscellaneous native nouns	*a̠ʐo- ~ a̠ʐæ-*	(small) stone
		-q^{h}o	hollow space
		-rmi	body hair in the head

Geshiza free nouns consisting of native nouns together with Chinese loanwords and most Tibetan loanwords appear independently and are prototypical nouns in the language. Bound nouns are identical to free nouns, except that they cannot occur freely, occurring only in compounds either as the left-hand or right-hand stem (see §6.3.5 for bound stems in compounding). Bound nouns include subsets from the following categories: Tibetan loanwords, noun stems with historical suffixes obligatory required for freestanding use, and many unclassified instances of native vocabulary. Semantics itself fails to predict whether a noun is free or bound, language-historical cases being at play behind every instance.

4.2.4. Countability of nouns

Co-occurrence with a classifier functions as a criterion for establishing countability for Geshiza common nouns. A noun may be countable (*mp^{h}ri* 'snake'), uncountable (*ɣælɔ* 'chest'), or countable only when conceptualised as a content in a container specified by the classifier (*a̠bu* 'sand'). Spatially defined and bounded nouns are generally countable, in contrast to unbounded referents that are uncountable. For the purposes of this grammar, the definition of nominal boundedness follows Bloomfield (1933: 205): in bounded nouns (e.g. English *house*), the

specimens cannot be subdivided or merged; in unbounded nouns (e.g. English *milk*), the specimens can be subdivided nor merged. Unbounded nouns may nevertheless in some instances be made bounded in Geshiza, which brings them to the sphere of countability. Consequently, nouns, such as the previously mentioned *ą̱bu* 'sand', that are uncountable by themselves, become countable by proxy when they are spatially enclosed inside a container: e.g. a bag containing sand. Table 4.6. below summarises the three categories of countability in Geshiza:

Table 4.6. Examples of Geshiza nouns from the viewpoint of countability

Countability	Semantic field	Examples
Countable	people	*jærəubə* 'generous person'; *vdzi* 'person, man'
	fauna	*grɔgrɔ* 'spider'; *mpʰri* 'snake'; *ɾgo* 'cow'
	flora	*ɕi* 'barley plant'; *mætɔ* 'flower'; *sʰəpʰo* 'tree'
	tools and objects	*bældzə* 'walking stick'; *bərzi* 'knife'; *ɣəu* 'needle'
	constructions	*dzo* 'bridge'; *ji-ko* 'sheep barn'; *mkʰær* 'tower'
	places	*ɾŋo* 'river'; *sʰætɕa* 'place'; *tɕæ* 'road' *zgoŋ* 'hill'
Countable by proxy	liquids	*dʑa* 'tea'; *mær-tɕʰoŋ* 'butter alcohol'; *wrə* 'water'
	powders	*ą̱bu* 'sand'; *ą̱sær-vɕæ* 'gold grains'; *wdʑo* 'flour'
	mass-like substances	*ndæmba* 'mud, concrete'; *tsʰə* 'dirt (ground)'
Uncountable	vapours and gases	*də-mkʰə* 'tobacco smoke'; *zbjəu* 'vapour'
	body parts[33]	*ą̱mo* 'mouth'; *blæ* 'thigh'; *lmu* 'cockscomb'
	collectives (§6.2.2.6)	*æ-groŋ* 'whole villge'; *æ-qlo* 'whole valley'
	natural phenomena	*mæ* 'rain'; *mbru* 'thunder'; *wlæ* 'wind'
	particular spaces	*ą̱næn* sky; *ą̱nænlæn* 'ceiling'; *ą̱nælvəu* 'hell'
	locative nouns	*ɣæ-zde* 'right side of river looking downriver'
	temporal nouns	*gædə* 'morning'; *gəɕʰo* 'evening'; *mdzo* 'noon'
	abstract notions	*ɕʰæmu* 'effort'; *goŋ* 'price'; *skræ* 'dowry'

Noun categorisation and semantic fine-tuning with classifiers

In an often-cited analysis of Burmese, Becker (1975: 113) shows how the selection of a classifier serves a function of noun categorisation or highlighting different semantic aspects of the noun in question: e.g. *myiʔ tə myiʔ* 'river one river' (unmarked case); *myiʔ tə yaʔ* 'river one place' (e.g. as a destination for picnic); *myiʔ tə tan* 'river one line' (e.g. on a map). Geshiza behaves similarly. Most nouns in Geshiza may occur together with a classifier (see §4.7) in discourse. Since many nouns are compatible with several classifiers, the use of a classifier

[33] As an exception to the stated pattern, when visible body parts exist in quantifiable number and are clearly delineated, thus subject to dismemberment or removal (e.g. due to an accident, violence, or natural causes, such as loss of children's milk teeth), they can be counted: e.g. *ɕə* 'tooth'; *ʑa* 'hand'; *ʑæ-mæ* 'thumb'.

contextualises and narrows down the exact referent of a noun. For instance, *dʑa* 'tea' with the classifier *æ-q^{h}a* (one-CLF.stick) refers to unprocessed tea leaves pressed into brick-like form, while the classifier *æ-ʑæl* (classifier for cups, bowls, small containers) refers to the drink prepared and served in a cup. Also, countable nouns are subject to subgrouping based on the applied classifier. Examining, nouns whose primary classifiers are *æ-q^{h}a* and *æ-ɣi* (one-CLF.person), it becomes clear that the Geshiza perceive a similarity with a long shape with nouns occurring with the former, while the latter forms a semantic network of roles and professions of people, both cases being illustrated in Table 4.7 below:

Table 4.7. Examples of noun classification by classifiers

N with CLF *æ-q^{h}a* 'stick classifier'	Gloss	N with CLF *æ-ɣi* 'human classifier'	Gloss
bət^{h}a	stick	*ɑ̱rara-me*	fighter
bəʑo	bug, insect	*ɑ̱væl*	shaman (see §2.7.1)
bri	leash, chain	*bət^{h}oŋ*	son-in-law
dzo	bridge	*bəʑə*	boy, young man
dʑə	tusk, fang	*ɕ^{h}anvzə*	carpenter
ɣəu	needle	*də-va-t^{h}i-me*	smoker
lævtɕoŋ	gun	*dʑɔpa*	bandit
mdʑa	rainbow	*goŋ-ma*	emperor
tɕæ	road	*stærvə*	guest, visitor

4.2.5. Historical affixes

Nominal morphology in Geshiza has undergone great simplification in contrast to core Gyalrong languages that retain more morphological complexity in their nominal systems. Geshiza nouns manifest affixation and stem alternation, but these operations are historical and no longer productive in the contemporary language, which renders the Geshiza nominal system morphologically simple. The morphological operations are nevertheless relevant for understanding and explaining synchronic behaviour in the language, which is why they are introduced in the following remarks.

Lack of possessive prefixes

Geshiza lacks possessive prefixes present in core Gyalrong languages, such as Japhug. As in Wobzi Khroskyabs (see Lai 2017: 155), such historical prefixes have possibly left few lexicalsed traces, though the evidence for this remains inconclusive. Possessive prefixes in Gyalrongic languages encode either indefiniteness or possession in a personal paradigm and must be present in inalienably possessed nouns, illustrated in Table 4.8 on the following page (Japhug cognate examples from Jacques 2015a).

Table 4.8. Erosion of possessive prefixes in Geshiza

Geshiza	Gloss	Japhug	Gloss
ɕə	tooth	*tɯ-ɕɣa*	tooth
rjəu	wife	*tɤ-rʑaβ*	wife
rts^{h}e	lungs	*tɯ-rtshɤz*	lungs
snəu	nasal mucus (liquid)	*tɯ-ɕnaβ*	snot (dry)
sno	sibling of opposite sex	*tɤ-snom*	sister
s^{h}e	blood	*tɤ-se*	blood

Historical affixes

A portion of Geshiza nouns appear together with seven historical suffixes: *æ-, -lɣuə, -væ, -va, -(l)mæ, -(l)ma,* and *-lV* , summarised in Table below 4.9. The pairs *-væ, -va* and *-(l)mæ* and *-(l)ma* likely stand in an allomorphic relation, reducing the number of distinct suffixes to five. The nouns include five suffixes whose historical function is linked with gender marking. While at least a part of the suffixes appears to have been derivative in origin, they have become morphological bulk, and are not discussed in chapter 6 dedicated for derivation. In addition, many native kinship nouns (see §2.3.3) of Geshiza contain the kinship prefix *æ-*.

Table 4.9. Historical nominal affixes in Geshiza

Affix Form	Kinship terms	Male zoonyms	Female zoonyms	Person in general	Inanimate nouns	Examples
æ-	✓	✗	✗	✗	✗	*æ-ʑo* 'maternal uncle' *æ-pə* 'grandmother'
-lɣuə	✗	✓	✗	✗	✗	*k^{h}ə-lɣuə* 'male dog' *væ-lɣuə* 'boar'
-væ	✗	✓	✗	✓	✓	*wo-væ* 'male bear' *rə-væ* 'villager' *rgæ-væ* 'stone'
-va	✗	✗	✗	✓	✓	*lu-va* 'blind person' *də-va* 'tobacco'
-(l)mæ	✗	✗	✓	✓	✓	*lə-mæ* 'female cat' *lɣa-mæ* 'crazy person' *ŋʤʑæ-mæ* 'big log'
-(l))ma	✗	✗	✗	✗	✓	*zdo-ma* 'cloud' *ʑæ-ma* 'thumb'
-lV	✗	✗	✗	✗	✓	*lba-la* 'leaf' *ŋʤʑæ-le* 'log'

Historical kinship prefix æ-

Seven native kinship terms (see §2.3.3 for the Geshiza kinship system) in Geshiza receive the kinship prefix *æ-* (4.3.). In addition, the suffix is implicitly present in *wo-mɲi* 'great-grandfather' and *wo-pə* 'great-grandmother' that historically result from adjoining of a morpheme *wV (likely: 'again') into *æ-mɲi* and *æ-pə*, respectively. The fossilised kinship prefix originates from the proto-language. Matisoff (2003: 104-105) postulates a glottal prefix that marks kinship as one of its semantic functions in Proto-Trans-Himalayan. Furthermore, Chirkova (2012: 143), lists the prefix *a-* as one of the shared characteristics of the Qiangic languages, labelling it as a kinship prefix for marking older kin. Geshiza retains this restriction for the prefix *æ-*, since no kinship terms for younger kin can be prefixed with it in the language. Interestingly, while in the Balang dialect, the kinship prefix is never used with the Chinese loanwords *koko* 'older brother' and *tɕetɕe* 'older sister', such innovative use is attested further west in Geshiza Valley: *æ-ko* 'older brother', *æ-tɕe* 'older sister' (see also Duo'erji 1997: 36 for a corroborating documented innovative use of the kinship prefix in the author's native dialect).

(4.3)

æ-mæ	'mother'
æ-pa	'father'
æ-ʑo	'maternal uncle'
æ-kə	'paternal uncle'
æ-pə	'grandmother'
æ-mɲi	'grandfather'
æ-tæ	'older sibling'

Gender suffixes of zoonyms

The suffixes often appear in gender-marking role in an unsystematic and unproductive way (Table 4.10, following page). Geshiza thus lacks grammatical gender as an agreement system, but gender is manifest as natural gender in a subset of nouns referring to animals. This cannot be interpreted as a gender or noun class system, which in Aikhenvald's (2000: 20-21) definition requires that 'some constituent outside the noun itself must agree in noun class with a noun' and 'each noun in the language belongs to one (or occasionally more than one) class(es)'.

In zoonyms, female gender is marked by the suffix *-mæ* and its allomorph *-lmæ*. In turn, masculine gender is marked by its antonymic opposite *-væ* in most cases, six exceptional cases referring to domestic animals receiving the marker *-lɣuə*. The suffix *-lɣuə* may have a historical connection with the noun *lguə* 'testicles'. The suffix *-væ* derives from the PTH *wa ~ p^{w}a 'man husband, person', and *-mæ* reflects the PTH *ma 'female, mother'. While gender marking is common with domestic animals, it is in practice rarely used with wild animals, for which indicating gender lacks cultural relevance. When applicable, gender marking requires the dependent compound stem form (see §4.2.6) of a noun: *ji* 'sheep' > *jæ-mæ* 'ewe'.

Table 4.10. Suffixes in zoonyms denoting gender

Masculine Term	Gloss	Female zoonym	Gloss
ra-væ	cock, rooster	*ra-mæ*	hen
bə-væ	ox, bull	no morphologically corresponding form	
guæ-lɣuə	young bull	*rguæ-lmæ*	young heifer
k^{h}ə-lɣuə	male dog	*k^{h}ə-mæ*	bitch, female dog
lə-lɣuə	male cat	*lə-mæ*	female cat
jæ-lɣuə	ram, male sheep	*jæ-mæ*	ewe, female sheep
ts^{h}æ-lɣuə	buck, male goat	*ts^{h}æ-lmæ*	doe, female goat
væ-lɣuə	boar, male pig	*væ-lmæ*	sow, female pig

Use of historical suffixes with human referents

Besides the paradigmatic use of the historical suffixes as animal gender markers, they appear with nouns denoting human referents and even with non-animate nouns, in the latter case of which they lack any synchronic semantic contribution. Also, unlike in gender marking with animals, with human referents, the historical suffixes do not distinguish gender. Table 4.11 lists the identified lexical items exhibiting such suffixation. When the suffixed form includes a recognised root used independently without suffixation in other contexts, this is also noted.

Table 4.11. Examples of nouns with historical suffixes in Geshiza

Suffix	Example	Gloss
-væ	*jo-væ*	husband, wife; *jo* 'house'
	rə-væ	villager
	vdzæ-væ	old man
	we-væ	family member; *we* 'house'
	rgæ-væ[34]	stone
-va	*lu-va*	blind person; *lu* 'to become bind'
	də-va[35]	tobacco
	mp^{h}ri-va	prayer beads; *mp^{h}ri* 'snake'
	ŋk^{h}æ-va	snow
	slu-va	Moon
	sɲɔ-va	fishbone, awn of wheat
-(l)mæ	*læ-mæ*	liar; *læ* 'lie, fake'
	lɣa-mæ	crazy person; *lɣa* 'to become crazy'
	p^{h}ə-mæ	poor person

[34] The word manifests suffixal variation. The form *rgæ-væ* is used in easternmost area of Eastern Geshiza, while *rgæ-mæ* is used in westernmost areas of Eastern Geshiza and Western Geshiza.

[35] Possible alternative etymology from Tibetan *tu ba* 'smoke', which would render the term non-compositional.

	ŋɖʐæ-mæ	big log
	reju-ɕə-mæ	front teeth; *ɕə* ‘tooth’
	rgæ-mæ[36]	stone
	rguæ-lmæ	young heifer
	ʂɲɔ-lmæ	wheat spike, part of wheat with grains
	ts^{h}æ-lmæ	doe, female goat; *ts^{h}æ* ‘goat’
	wrə-mæ	stomach (inside the body); *wrə* ‘water’
	ʑə-mæ	big field; *ʑə* ‘field’
-(l)ma	*k^{h}rak^{h}ra-ma*	decorative strips at the end of *mtɕ^{h}æva* blanket
	nt^{h}ɔ-ma	embroidered strings in the baby carrying belt; *nt^{h}ɔ* ‘to weave, embroider’
	nts^{h}æ-lma	dream
	ŋk^{h}u-ma	key; *ŋk^{h}uə* ‘to put in’
	q^{h}iq^{h}a-ma	trash, rubbish; possibly from *q^{h}ɪ* ‘to be bad’
	srænɕ^{h}æn-ma	traditional piece of clothing made of otter skin; *sræn* ‘otter’
	ste-ma	left-over, remainder
	zdo-ma	cloud; *zdo* ‘to be overcast, cloudy’
	ʑæ-ma	thumb; *ʑæ* ‘hand’
-lɣuə	*guæ-lɣuə*	young cow bull
	jæ-lɣuə	ram (i.e. male sheep); *ji* ‘sheep’
	k^{h}ə-lɣuə	male dog
	lə-lɣuə	male cat
	ts^{h}æ-lɣuə	buck, (i.e. male goat); *ts^{h}æ* ‘goat’
	væ-lɣuə	boar (i.e. male pig); *va* ‘pig’
-lV	*a̱mær-la*	butter
	lba-la	leaf
	dʑæ-læ	skin, bark, peels of a fruit
	mk^{h}ə-lə	smoke; *mk^{h}ə* ‘smoke’
	ndzə-le	domestic animal with a colour spot on the face; *ndzə* ‘colour spot on the face of an animal’
	ŋɖʐæ-le	log
	rguə-lu	fist; *rgu* ‘to hit with a fist’
	vkra-la	pattern on the skin of a domestic animal

[36] See the footnote on the previous page.

Suffix -va ~ -væ

The suffix *-væ* appears as a male gender marker in *vdzæ-væ* 'old man'. Mostly instances of *-væ* nevertheless refer to both to males and females: *we-væ* 'family member' carries no gender restrictions in terms of its referent. Consequently, *-væ* has become generalised outside its original scope of male gender marking. Also, unlike the other suffixes, *-væ* is still productive in Geshiza for deriving nativity and source nouns (see §6.2.2.2) regardless of their gender: *stæwə* 'Daofu County' > *stæwə-væ* 'person from Daofu County'. In eastern dialects of Easten Geshiza, The suffix also surfaces in the non-animate noun *rgæ-væ* 'stone' that is often suffixed with a *-mV* suffix in other Horpa lects, and in Wobzi Khroskyabs (Lai 2017: 154). Finally, the suffix *-va* is possibly a historical allomorph of *-væ* and serves a similar function.

Suffix -(l)ma ~ -(l)mæ

Like the suffix *-væ,* the suffix *-(l)mæ* appears as animal female gender marker. In addition, the suffix is used with human referents in a genderless sense of indicating class membership: *lɣa-mæ* 'crazy person (man or woman)', *pʰə-mæ* 'beggar (man or woman)'. Like *-va ~ -væ,* the suffix *-(l)mæ* also appears with many inanimate nouns. Suffix *-(l)ma* is possibly a historical allomorph of *-(l)mæ* and serves a similar function.

Suffix -lV

Finally, of all the suffixes, *-lV* is the one most difficult to pin down. The suffix to a degree replicates the vowel of its host, which provides evidence for a system of vowel harmony in the language at an earlier historical state. As discussed in §3.4.2, contemporary Geshiza lacks productive vowel harmony. In terms of its form and vocalisation, the suffix is identical to the historical repetitive suffix *-lV ~ -rV* (see §6.2.3.10). More historical research in Gyalrongic languages is needed to determine whether this arises as a mere coincidence or manifests a historical connection.

Explaining the distribution of the suffixes

The suffixes *-(l)ma ~ -(l)mæ* and *-va ~ -væ* present two issues that need to be discussed. First, the suffixes appear semantically empty in non-animate contexts. Second, a noun with a human referent may exhibit gender that differs from the historical function of the suffix: e.g. *læ-mæ* 'liar' who is a man.

The issue is most approachable from the viewpoint of the suffix *-(l)ma ~ -(l)mæ*. Matisoff (1991: 299) shows that languages of East and South-East Asia exhibit three regional characteristics in 'mother morphs' rarely encountered in other linguistic areas: 1. use of mother morphs for the principal digits, e.g. thumb; 2. opposition between mother and child to mark augmentative and diminutive, respectively; 3. grammaticalisation and bleaching of mothermorphs. This characterisation is relevant in the context of Geshiza as well, since the

functional scope of *-(l)ma ~ -(l)mæ* has widened through metaphor.

Applying Matisoff (1991: 333), I propose the following semantic fields as an extension of the original literal sense to explain the presence of the historical female suffix *-(l)ma ~ -(l)mæ* in Geshiza: 1. mother (literal sense); 2. female of living beings; 3. source or origin; 4. augmentative: 'big, main, principal'; 5. objects in general, including historical nominalisations.[37] For instance, *læ-mæ* 'liar' is metaphorically 'mother of lies' exhibiting the originative function of the female suffix regardless of the gender of the referent. The metaphoric widening can be summarised as mother > female > source and origin > augmentative > object in general, illustrated in Table 4.12:

Table 4.12. Metaphorical extensions of the suffix *-(l)ma ~ -(l)mæ*

Form	Gloss	1	2	3	4	5
mæ	mum	✓	✗	✗	✗	✗
ra-mæ	hen, 'female chicken'	✗	✓	✗	✗	✗
kʰə-mæ	bitch, 'female dog'	✗	✓	✗	✗	✗
læ-mæ	liar, 'mother of lies'	✗	✗	✓	✗	✗
wrə-mæ	stomach, 'mother of waters'	✗	✗	✓	✗	✗
ʑæ-ma	thumb, 'mother of hand'	✗	✗	✗	✓	✗
ŋɖæ-mæ	big log, 'mother of logs'	✗	✗	✗	✓	✗
ŋkʰu-ma	lock (also frequently used for key)	✗	✗	✗	✗	✓
ste-ma	leftovers	✗	✗	✗	✗	✓

A similar analysis is applicable to the historical suffix *-va ~ -væ*. Following Matisoff (1991: 333), I propose the following semantic fields as an extension of the original literal sense to explain the presence of the historical male suffix: 1. father (literal sense), 2. male of living beings, 3. person in general regardless of sex, 4. object in general, possibly including at least one historical nominalisation. For instance, *lu-va* 'blind person' originating as a historical nominalisation of *lu* 'to be(come) blind' belongs to category three, since it can refer to both males and females. The metaphoric widening can be summarised as father > male (people and animals) > person (regardless of sex) > object in general, illustrated in Table 4.13 on the following page:

[37] The suffix *-(l)ma ~ -(l)mæ* is not a productive nominaliser in contemporary Geshiza. *lɣa-mæ* is a historical nominalisation of *lɣa* 'to become crazy. Similarly, *ŋkʰu-ma* 'lock, key, set of lock and a key as a whole' originates from the nominalised verb *ŋkʰuə* 'to put in'. Alternation between *u* and *uə* is attested also in other contexts: e.g. *ʁguə-lu* 'fist, to hit with a fist' vs. *æ-ʁgu* 'classifier for hits with the fist'. *ntʰɔ-ma* 'embroidered strings in the baby carrying belt' might derive from the nominalised verb *ntʰɔ* 'to weave, embroider'. The verb, however, is a Tibetan loan *'thag* 'to knit, weave', which makes it difficult to exclude the possibility that *ntʰɔ-ma* as a whole is borrowed from a Tibetan *'thag ma,* thus making it pseudo-affixal in Geshiza, as discussed at the end of the subsection.

Table 4.13. Metaphorical extensions of the suffix *-va ~ -væ*

Form	Gloss	1	2	3	4
væ	dad	✓	✗	✗	✗
ra-væ	cock, rooster	✗	✓	✗	✗
vdzæ-væ	old man	✗	✓	✗	✗
jo-væ	husband or wife	✗	✗	✓	✗
lu-va	blind person	✗	✗	✓	✗
də-va	tobacco	✗	✗	✗	✓
rgæ-væ	stone	✗	✗	✗	✓

Suffixed Tibetan loanwords

Tibetan loanwords with suffixes also appear in Geshiza, a selection of which is given in Table 4.14. These loanwords must nevertheless be distinguished from Geshiza suffixed nouns discussed above. The former are merely pseudo-affixal, since they are morphologically unanalysable, despite resembling Geshiza suffixed nouns at the surface level. In compounding (see §6.3), Geshiza historical suffixes frequently drop: *zdo-ma* 'cloud' > *zdo-ɲa* (cloud-to.be.black) 'black cloud, storm cloud'. This does not happen with Tibetan suffixed loanwords in compounding: *rkəmæ* (WT *rku ma* 'thief') > *rkəmæ-bəʑə* 'young man who is a known thief', rather than the ungrammatical **rkə-bəʑə*.

Table 4.14. Examples of Tibetan affixed nouns morphologically unanalysable in Geshiza

Tibetan affix	Tibetan	Gloss	Geshiza	Gloss
-ma	*chang ma*	barmaid	*tɕʰoŋma*	alcohol server at parties
-ma	*rku ma*	thief	*rkəmæ*	thief
-ma	*gong ma*	upper, emperor	*goŋma*	emperor
-ma	*rŋga ma*	tail	*rŋæma*	tail
-mo	*rta mo*	male	*rtæmo*	mare
mo-	*mo 'dre*	female ghost	*moɳʤi*	female demon
-po	*rta po*	horse	*rtæpʰo*	stallion

4.2.6. Stem alternation and the compound stem (construct state)

In a non-productive fashion, a subset of Geshiza nouns from the old lexical stratum exhibit stem alternation. Similar behaviour is common in Gyalrongic languages, and the concept of 'construct state/status constructus' has been adopted from Semitic studies (e.g. Jacques 2004, Lai 2017). The term ablaut is also used (Sun 2003: 492). Construct state as a term has gained foothold in Gyalrongic linguistics in recent years. The Semitic construct state essentially encodes a genitival relationship between the constituents. On the other hand, the relationship

between the stems in Geshiza is compositional, i.e. that of a subordinate, attributive, or coordinate compound. Against this background, the nominal stem undergoing a vocalic alternation in compounding in Geshiza is simply called compound stem here.

Geshiza compound stem refers to a distinct morphological form present in the first part of compounds. Since by far most compounds in Geshiza classify as nominal compounds (see §6.3), stem alternation is discussed here in the context of nouns. Also, the compound stem surfaces with the historical nominal suffixes (see §4.2.5) in most instances: *ji* 'sheep'; *jæ-mæ* 'ewe, female sheep'. Diachronically this by no means goes against the characterisation of the compound stem in compounding contexts, since the historical nominal suffixes originate as independent nouns forming compounds.

Compound stems (glossing: N.CS for a given noun N) are formed via vowel alternations. All attested compound stems originate from monosyllabic nouns that are open syllables. In the source materials, the vowels *i, e, æ, a, o* undergo the change into the construct state. The general rule for forming a compound stem is summarised with the following three statements. First, as a general case, the vocalisation of a freestanding noun changes from C(C)V into C(C)*æ* in stems with i, e, *a*, *o* vocalisations (4.4):

(4.4)

sni 'nose'	>	*snæ-dəu* 'snuff'
ʑe 'wheat'	>	*ʑæ-k^{h}e* 'Geshiza bread made of wheat'
qa 'mountain'	>	*qæ-ɣuə* 'summit, mountain top'
jo 'house'	>	*jæ-ɣuə* 'rooftop'

Second, since stems with *æ* vocalisations would be identical with their compound stems, the compound stem is formed with a vowel shift into *a* in two attested cases: *mæ* 'mother' > *ma-zə* 'mother and child'. Finally, if a medial *-j-* is present in the source stem, it is dropped in the compound stem, at least in the attested case of *ɾji* 'horse' > *ræ-kue* 'foal, young horse'.

The compound stem concerns the first constituent in a compound. In three exceptional cases, *ma-zə* 'mother and a child'; *va-zə* 'father and a child'; and *lŋæ-zə* 'infant', also the second constituent, namely the noun *zi* 'son' that is also the historical diminutive suffix (see §6.2.2.1), undergoes a vowel alternation. This single special case must consequently be treated as exceptional.

Table 4.15 on the following page offers a list of attested nominal stem alternations from the source materials, also including compounds that lack dedicated compound stems for illustrative purposes. Even though most forms appear as expected, some instances defy the rule stated above. For instance, some right-hand constituents of compounding, e.g. *dzi* 'food', never trigger the compound stem: *ɾji-dzi* 'pig fodder', not **ræ-dzi*. In other words, rather than being an automatic process, the use of the compound stem is determined on case-by-case basis.

Table 4.15. Examples of nominal stem alternation in Geszhiza

Unbound	Gloss	Bound	Example	Gloss
ɕi	highland barley	*ɕæ-*	*ɕæ-mtsæ*	tsampa
ji	sheep	*ji-*	*ji-rgæma*	sheep tail
		jæ-	*jæ-lɣuə*	ram
			jæ-lŋa	lamb
			jæ-mæ	ewe
ɾji	horse	*ɾji-*	*ɾji-dzi*	horse fodder
		ræ-	*ræ-kue*	foal, young horse
			ræ-lŋo	empry horse (i.e. no rider)
			ræ-mæ	mare
			ræ-ɲa	black horse
			ræ-pʰru	white horse
sni	nose	*snæ-*	*snæ-dəu*	snuff
			snæ-ldzoŋ	elephant trunk
			snæ-mtso	sharp nose
			snæ-pær	flat nose
			snæ-rqʰe	nasal mucus
kʰe	Geshiza bread	*kʰæ-*	*kʰæ-tɕʰu*	burned Geshiza bread
re	turnip	*re-*	*re-jo*	turnip field
		ræ-	*ræ-ɣuə*	part of turnip that surfaces
			ræ-qʰo	turnip carved hollow
			ræ-vɕʰi	part of turnip underground
ʑe	wheat	*ze-*	*ze-jo*	wheat field
		ʑæ-	*ʑæ-kʰe*	Geshiza bread made of wheat
mæ	mother	*ma-*	*ma-zə*	mother and a child
væ	father	*væ-*	*væ-mæ*	father and mother
		va-	*va-zə*	father and a child
kʰa	mouth	*kʰa-*	*kʰa-zgəu*	lid
		kʰæ-	*kʰæ-stʰə*	cork
lŋa	child	*lŋæ-*	*lŋæ-zə*	infant
qa	mountain	*qa-*	*qa-ɲo*	other side of a mountain
			qa-va	wild boar
			qa-væ	mountain dweller
		qæ-	*qæ-ɣuə*	summit
			qæ-wɕo	foot of a mountain
ɾŋa	face	*ɾŋa-*	*ɾŋa-ma*	face lotion
		ɾŋæ-	*ɾŋæ-go*	cheek

ʑa	hand	*ʑa-*	*ʑa-mdʑo*	gloves
		ʑæ-	*ʑæ-brəu*	palm
			ʑæ-kuəla	left hand
			ʑæ-lt^{h}ə	right hand
			ʑæ-mæ	thumb
			ʑæ-t^{h}a	ring
va	pig	*va-*	*va-dzi*	pig fodder
			va-ʑa	pig front legs
		væ-	*væ-kəu*	pig skin
			væ-lgə	pig trough
			væ-lɣuə	boar
			væ-lmæ	sow
			væ-ɲa	dark-skinned pig
			væ-p^{h}ru	light-skinned pig
			væ-wɕ^{h}ə	distillers grains of corn
			væ-zi	piglet
ra	cliff	*ra-*	*ra-p^{h}ru*	White Mountain (toponym)
		ræ-	*ræ-wvo*	cave
jo	house	*jo-*	*jo-væ*	husband, wife
		jæ-	*jæ-ɣuə*	rooftop
rtɕ^{h}o	clay	*rtɕ^{h}æ-*	*rtɕ^{h}æ-ɲji*	red dirt, red clay
			rtɕ^{h}æ-ɲa	black dirt, black clay
			rtɕ^{h}æ-q^{h}o	clay extraction site
ʂno	pea, bean	*ʂnæ-*	*snæ-ʐu*	pea
wdo	bucket	*wdæ-*	*wdæ-zi*	milking bucket

4.3. Verbs

This section discusses the primary morphosyntactic properties of the Geshiza verb, the language's morphologically most complex word class. The section is divided as follows: definition of verbhood (§4.3.1); Geshiza verbal template (§4.3.2); argument indexation (§4.3.3); verb classes (§4.3.4); inflectional morphological operations (§4.3.5); infinitive form (§4.3.6); complex predicates (§4.3.7); and copulas and auxiliaries (§4.3.8). Due to the wide range of discussed issues, a brief summary is included (§4.3.9). Predominantly prefixing verb morphology of Geshiza is the most morphologically complex aspect of the language. Categories, such as orientation, TAM, negation, interrogation, modality, person, and evidentiality are morphologically present in the verb, and dealt in greater detail in later functional chapters. The language lacks a passive voice and incorporation does not play a major role in the verbal system.

4.3.1. Defining verbhood

Geshiza verbal morphology uses affixes; stem alternation in the form of aspiration alternation and voicing alternation; reduplication; and conversion (zero-derivation). Of these, the affixal operations dominate over the rest. Prefixal morphology with five available templatic slots dominates in the verbal system, suffixes appearing in three post-stem slots. The dominance is not as conspicuous as in core Gyalrong languages known for their predominantly prefixal morphology (see §1.5.2. *Word order typology*).

Inspecting the formatives adjoining a verb in the morphological template illustrated in Table 4.16 in the following subsection, it becomes apparent that derivational formatives attach closer to the stem, followed by those with inflectional function further away. This follows a typological tendency sometimes stated as a universal: in languages with both derivational and inflectional affixes, the former attach closer to the word root (Greenberg 1963: 93).[38]

Verbs in Geshiza are identifiable through their combinability with negator prefixes. In Lahu, a Lolo-Burmese language, Matisoff (1972: 193) defines verbs as all and only those words capable of directly following the negative adverb *mâ* 'not'. He further claims that the criterion applies to all hitherto studied Sino-Tibetan (i.e. Trans-Himalayan in this grammar) languages. In Geshiza, verbs are defined as a word class whose members may be negated with the negative suffixes (see §11.2) and may host the evidential and engagement suffixes (see §9.2). A mere condition of standard negation suffixes appears insufficient at first, since the negative prefixes *mi-* and *mə-* are occasionally present in prefixed adjectives (see §4.4.2) derived from verbs: *mdze* (V) 'to be beautiful' > *mi-mdze* (V) 'to not be beautiful' > *gæ-mi-mdze* (ADJ) 'non-beautiful'. Looking at the order of operations, such instances are nevertheless adjectivisations of negated verbs, rather than negations of adjectivised verbs, and Matisoff's definition holds in full for Geshiza as well (see §11.3.1 for more). In other words, whichever forms can be *directly* preceded by a standard negator are independent verbs in Geshiza. The following exceptions to the stated rule arise. First, when a bound auxiliary verb (see §4.3.8) is present, the main verb and not the auxiliary always hosts the negators. Second, the copula has a dedicated suppletive-like negative counterpart that nevertheless possibly diachronically includes a fusioned negator (see §11.2.4 *Historical remarks*). This is similar to the negative existential verb *ma* (see 11.2.5) that cannot be further negated.

4.3.2. Geshiza verbal template

With ten slots, the verbal template of Geshiza is complex. Table 4.16 on page 231 shows the major morphological slots with the paradigmatic morphemes enumerated. The listing that follows gives the used glossing abbreviations of each morpheme and process formative, with

[38] It should be noted, however, that this tendency applies only to category-preserving derivation in Geshiza. Strictly speaking, stem alrernation directly affecting the verbal stem contradicts this. Nevertheless, since stem alternation belongs to the domain of non-concatenative morphology, it is not included in the original scope of the mentioned universal proposed for affixes.

an internal reference to mostly functional contexts where they are discussed.

In the verbal template, the order of the morphemes is fixed and free variation is not allowed. Observing the behaviour of morphemes inside a given slot shows that Geshiza exhibits what DeLancey (2016) calls paradigmatic complexity, a notion that refers to richness in forms that occur inside a single paradigm 'vertically'. In Geshiza, most slots in the template qualify for this complexity that is generally considered an archaic feature in the Trans-Himalayan language family. In contrast to paradigmatic complexity, DeLancey shows that syntagmatic complexity in Trans-Himalayan languages often equals newer, innovative development. Syntactic complexity contrasts with paradigmatic complexity in the sense that it is 'horizontal', comprising an abundance of forms that share no paradigmatic relationship with each other. In sum, templatic morphology of Geshiza may thus contribute towards historical research on the Trans-Himalayan language family.

The Geshiza verb consists of the parts illustrated in the table on the following page. For the ease of argumentation, each of the slots is given a number in the template. The verbal template functions on the basis of two fundamental principles: fixed order and mutual exclusiveness. The affixes must appear in the fixed order exemplified by the template. Second, an affix from one slot automatically disallows the appearance of any other affix from the same slot. The evidentiality and perspective slot + 3 constitutes an exception to this, allowing the cooccurrence of its constituent elements (see §9.4.2).

Only a verb root with the third person zero marking is compulsory to form a functioning verb phrase, but in general, at least a part of the elements from the template are present. Both the inverse prefix (see §4.3.3.2) and the root constitute the scope of reduplication. Also, the verbal template presented below is intended as an abstraction from the source materials; no single attested form contains all the elements presented.

Table 4.16. Verbal morphology of Geshiza: inflection and category-maintaining derivation[39]

SECONDARY ASPECTS	ORIENTATION, ASPECT, MOOD	MOOD	NEGATION	REDUPLI-CATION	VALENCY, INVERSION
-6	-5	-4	-3	-2	-1
jæ- (1)	*rə-* (3)	*æ-* (9)	*mi-* (13)	RED (17)	*v-* (18)
gægæ- (2)	*næ-* (4)	*-i-* (10)	*mɛ-* (14)		*s/s^h/z-* (19)
	wə- (5)	*-a-* (11)	*mə-* (15)		*N-* (20)
	gæ- (6)	*-ə-* (12)	*-di- ~ -di-* (16)		*N-* (21)
	dæ- (7)				*ɲjæ-* (22)
	zə- (8)				*a̱-* (23)

cont.

VERB ROOT Σ	HISTORICAL REPETITIVE	ARGUMENT INDEXATION	EVIDENTIALITY AND ENGAGEMENT
0	1	2	3
Σ ~ Σ^h (24)	*-lV ~ -rV* (26)	*-u* (27)	*-ræ* (32)
C_{VOICED} ~ $C_{UNVOICED}$ (25)		*-ŋ* (28)	*-s^{h}i* (33)
		-i (29)	*-jə* (34)
		-n (30)	*-wo* (35)
		-ɣuən (31)	*-go* (36)
			-mə (37)

-6 1: continuative prefix (CONT; §8.3.4), 2: cumulative prefix (CUM; §8.3.5)

-5 3-7: orientational-aspectual prefixed (DIR etc.; §8.2; §8.3), 8: prospective prefix (PROSP; §8.3.3)

-4 9-10: interrogative prefixes (Q; §8.5.6; 10.1.2), 11: optative prefix (OPT; §8.5.5), 12: non-actual realis prefix (NACT; §8.5.2)

-3 13-14: standard negation prefixes (NEG; §11.2.1), 15: modal and non-controllable negation prefix (MOD.NEG; §11.2.2), 16; irrealis negator prefix (IRR.NEG; §11.2.3)

-2 17: reduplication (RED; §4.3.5.5)

-1 18: inverse prefix (INV; §4.3.3.2), 19: causative prefix (CAUS; §6.2.3.4), 20: applicative prefix (APPL; §6.2.3.8), 21: autobenefactive prefix (AB; §6.2.3.7), 22: reflexive prefix (REFL; §6.2.3.9), 23 intransitivising prefix (INTR; §6.2.3.6)

0 24: aspiration alternation (indicates tense: NPST or PST; §4.3.5.3; §8.4), 25: voicing alternation (used in anticausativisation: §6.2.3.5)

[39] For the sake of simplicity of representation, only category-maintaining derivation is included in the table. For an overall picture of derivational devices with verbs as the source category, see §6.2.3.

1 26: historical repetitive suffix (REP; §6.2.3.10)

2 27-30: argument indexation suffixes, function depends on the verb class (§4.3.d), 31: archaic imperative suffix interpretable as an argument indexation marker (§10.2.5)

3 evidentiality and engagement suffixes: 32: sensory evidential (SENS; §9.2.2), 33: inferential evidential (IFR; §9.2.3), 34: reportative evidential (REP; §9.2.4), 35: quotative evidential (QUOT; §9.2.5), 36: non-shared information (NSI; §9.2.6), 37: epistemic suffix (EV: §9.2.7)

4.3.3. Argument indexation

Before proceeding to Geshiza verb classes in §4.3.4, this section offers a detailed formal outlook into argument indexation in Geshiza. Main topics of discussion concern an overview of indexation (§4.3.3.1); the inverse prefix *v-* (§4.3.3.2); vowel fusions (vowel sandhi) that commonly occur in argument indexation (§4.3.3.3); and paradigmatic irregularity (§4.3.3.4).

4.3.3.1. Overview of argument indexation

Geshiza verbal system exhibits a complex pattern of morphological alternations for indexing S, A, and O arguments of verbs. The arguments are indicated by means of argument indexation suffixes accompanied with verb stem vowel alternations, an inverse prefix *-v*, and reduplication. Table 4.17 below lists the argument indexation suffixes. Except the inverse prefix, all argument indexation affixes in Geshiza are suffixes, which differentiates Geshiza from core Gyalrong languages. Accompanying vowel alternations in argument indexation discussed in detail in §4.3.3.3 arose as a historical result of incorporating the argument indexation suffixes into the verb. As can be seen in the table, potential ambiguities arise for the argument indexation suffixes *-ŋ* and *-n*. Such cases are disambiguated by hierarchical alignment discussed in and §7.2. When approaching argument indexation in Geshiza for the first time, the reader is recommended to refer to this functional section as well. The simplest third person form is adopted here as the citation form of a verb, the possible inverse prefix included in the citation form.

Table 4.17. Argument indexation suffixes in Geshiza

Person	1		2		3
Number	SG	PL	SG	PL	
INTR (S)	*-ŋ*		*-n*		*-ø* (zero)
TR (P)					
TR (A)	*-u*		*-i*		

The largest functional load of expressing argument indexation in Geshiza falls on the argument agreement/indexation suffixes. The paradigm includes four suffixes, the third person lacking any morphological argument indexation marking. The peculiar characteristic of the

agreement morphemes is the fact that the morphemes have different personal ranges in intransitive and transitive scenarios. Intransitive argument indexation uses *-ŋ* for the first and *-n* for the second person regardless of number, respectively, as in the verbs *ɕə* 'to go' and *rgə* 'to sleep' (4.5). It should be noted that as mentioned above, the addition of the argument indexation suffixes commonly results in alternations in the stem vowel.

(4.5)					
	1	*ɕo-ŋ*	'I/we go';	*rgo-ŋ*	'I/we sleep';
	2	*ɕi-n*	'You (SG/PL) go';	*rgə-n*	'You (SG/PL) sleep';
	3	*ɕə*	'S/he/it goes'	*rgə*	'S/he/it sleeps'

In transitive use with A indexed, personal scope of the suffixes *-ŋ* and *-n* narrows down to plural contexts only, the singular having developed two novel argument indexation suffixes: *-u* for the first person and *-i* for the second person, respectively. This is illustrated in (4.6) with the transitive verbs *ŋgə* (V4) 'to eat' and *zdʑo* (V3b) 'to study'. The third person is unmarked, reflecting a typological tendency according to which the third person is unmarked, if an unmarked person exists in the verbal system.

(4.6)					
	1SG	***ŋg-u***	'I eat';	***zdʑo***[40]	'I study';
	1PL	*ŋgo-ŋ*	'We eat';	*zdʑo-ŋ*	'We study';
	2SG	***ŋg-i***	'You (SG) eat';	***zdʑu-e***	'You (SG)';
	2PL	*ŋgə-n*	'You (PL) eat';	*zdʑo-n*	'You (PL)';
	3	*ng-ə*	'S/he/it/the eat(s)'	*zdʑo*	'S/he studies'

Historical remark

The intransitive use of the argument indexation suffixes exhibits an earlier stage of the language. Both *-ŋ* and *-n* are instances of the so-called 'pronominalisation' of Trans-Himalayan. The term pronominalisation refers to the emergence of argument indexation systems from cliticised (or affixed) pronouns (LaPolla 1992: 298). The suffixes *-ŋ* and *-n* derive from the historical forms of the independent first and second person personal pronouns *ŋa* and *ɲi*, respectively (see.§4.5.1). Since the addition of *-ŋ* sometime affects the vocalic quality of the verb stem, the suffix is to be reconstructed as *Vŋ. Consequently, through metathesis, the evolutionary path of the suffix is proposed as in (4.7.) on the following page. In a similar fashion, the addition of *-n* has a marginal effect on the vocalic quality of the verb. It is reconstructed here as *Vn, with the postulated development path shown in (4.8) on the following page. Alternatively, vocalic alternations in Geshiza verb stems may be due to two distinct stems being used with different argument indexation suffixes (see Gong 2017 on the distribution of stems in Tangut).

[40] As already mentioned in this chapter, verbs are a closed word class in Geshiza. Importantly, the Tibetan loanword *zdʑo* from *sbjong/sbjangs* 'to study' shows that in the past, the class was open. In other words, loanwords were fully integrated with person indexation, identical to native verbs.

(4.7) *ŋV > *-Vŋ > *-ŋ.*

(4.8) *nV > *-Vn > *-n.*

Asymmetry in the number system

An asymmetric number system is occasionally called a mixed system (Dixon 2012: 52-55). Exhibiting relatively complex asymmetry in the nominal and verbal number systems, the label applies to Geshiza, where nominals exhibit more number distinctions than verbs. The asymmetry in number marking is illustrated in Table 4.18.

Geshiza argument indexation system lacks any suffixes for dual, which creates asymmetry between the verbal and nominal systems where dual is present. The dual suffixes are nevertheless thought to have existed in the Gyalrongic proto-language. The argument indexation range of the lost dual endings has been integrated into the plural endings when the verb expresses number, namely in the case of transitive verbs. As a result, dual nominal subjects require plural indexation in transitive verbs. In this respect, Geshiza diverges from core Gyalrong languages, the verbal systems of which contain the dual, e.g. Japhug (Jacques 2004).

Another prominent feature emerging from the examination can be stated as the lack of unspecified number in transitive verbs with the SAP subject indexed. This contrasts with nominals, intransitive verbs, and other scenarios of transitive verbs, viz. 3>3 interaction and speech act participant objects. Strictly speaking, the forms of the Geshiza transitive verb glossed as plural in this grammar should be called non-singular, since their range covers both the dual and the plural in the corresponding nominal system.

Table 4.18. Asymmetry in number marking in the nominal and verbal systems of Geshiza

Category	Number range		
Nominals	*non-specified*	*dual* (*=næ*)	*plural* (*=ɲə*)
Tr. verbs (SAP SUBJ)	*singular* (*-u, -i*)	*non-singular* (*-n, -ŋ*)	
Tr. verbs (rest), intransitive. verbs	*unspecified* (*-ø, -n, -ŋ*)		

4.3.3.2. Inverse prefix *v-*

The Geshiza verbal system uses an inverse prefix *v-* (glossing: INV) for argument indexation. As shown by Sun (2000b: 217), the inverse prefix present in many Gyalrongic languages reflects the Proto-Gyalrongic inverse prefix *wə-.The use of the inverse depends on the accessibility hierarchy discussed in detail in the context of alignment (§7.2). The inverse prefix serves to remove possible ambiguities between A and P. This is illustrated in examples (4.9, 4.10) on the following page:

(4.9) *dæ-kroŋ.*
PFV-catch.PST.1PL
We caught them.

(4.10) *dæ-**v**-kroŋ.*
PFV-**INV**-catch.PST.1
They caught us.

Formal properties of the inverse marker

The inverse prefix has two allophones: [v] and [f], the distribution of which is shown in Table 4.19. below. The inverse prefix surfaces with the majority of consonants in non-clustered environments. An initial nasal (*m, n, ɲ, ŋ*), labial (*p, pʰ, b, v*), or the labiovelar approximant (*w*) block the inverse prefix from appearing. This is because the resulting consonant clusters would violate the phonotactic rules (see §3.3) of Geshiza, resulting in non-allowed consonant clusters: e.g. *pær*, not **v-pær* 'to print'. In a similar fashion, in verbs with initial consonant clusters, the inverse marker fails to surface if the resulting three-member consonant cluster violates the phonotactic rules of the language. For instance, *v-qrə* 'to break'; *ntɕʰo* (and not **v-ntɕʰo*) 'to have'.

No verb starting with a non-clustered /ʈʂ, ʈʂʰ/ is attested (e.g. *ŋʈʂælvæ* 'to claw' for a clustered instance). Also, while word-initial /dz/ appears in intransitive verbs, e.g. *dza* 'to fall', it is lacking in transitive verbs in non-clustered environments, all attested clusters being phonotactically incompatible with the inverse prefix.

Table 4.19. Allophones of the inverse prefix

Allophone	First consonant of verb	Examples
[v]	*d, g, z, ʑ, ɣ, ɖʐ, j, r, l*	*v- rə* [v-rə] 'to buy'
[f]	*t, tʰ, k, kʰ, q, qʰ, s, sʰ, ɕ, ɕʰ, ts, tsʰ, tɕ, tɕʰ, x*	*v-kʰo* [f-kʰo] 'to give'
prefix absent	*m, n, ɲ, ŋ, p, pʰ, b, v, w*	*mə* [mə] 'to feed'

It is important to notice that not every *v* at the beginning of a verb can be attributed to the inverse prefix. In Geshiza some of the verb roots contain an initial /v/ that is part of the verb root and not the inverse prefix, making these verbs incompatible with the inverse prefix. Illustrated in Table 4.20 on the following page., the initial /v/ appears in all personal forms, which contrasts with real cases of inverse marking where only the third person is marked for the Inverse, if phonologically possible. Consequently, conjugating a Geshiza verb reveals whether a possible inverse prefix can really be interpreted as such, or belongs inalienably to the verb root.

Table 4.20. Geshiza verbs starting with a preinitial *v* not functioning as the inverse prefix.

`	to make, repair	to speak	to shave	to light, kindle
1SG	*vzu*	*vɕəu*	*vʑəu*	*zvəu*
1PL	*vzoŋ*	*vɕoŋ*	*vʑoŋ*	*zvoŋ*
2SG	*vzi*	*vɕe*	*vʑe*	*zve*
2PL	*vzən*	*vɕæn*	*vʑæn*	*zvæn*
3	*vzə*	*vɕæ*	*vʑær*	*zvær*

A large part of the verbs containing a non-inverse initial *v-* can be shown to be Tibetan loanwords (Table 4.21). The non-inverse initial belongs to the verb root by virtue of borrowing, and consequently appears in all verb forms. Other cases, such as *vdo* 'to see', *vtɕa* 'to make out of clay or similar material' are native words with cognates in other Gyalrongic languages. Therefore, not all cases of non-inverse initial *v-* result from borrowing only.

Table 4.21. Tibetan sources for the non-inverse *v-*

Tibetan	Gloss	Geshiza	Gloss
bzo	made, manufactured	*vzə*	to make, repair
bshad	spoke, told	*vɕæ*	to speak, tell
btsugs	established, set up	*vtsu*	to found, establish
bzhar	shaved	*vʑær*	to shave
btul	conquered, subdued	*vtəl*	to conquer

Inverse distinguishing verb pairs

In a highly limited fashion, the inverse also serves the function of distinguishing transitive-intransitive verb pairs, such as *q^{h}i* 'to be bad', *v-q^{h}i* 'to hate'; *qrə* 'to break (e.g. plates and cups as subjects), INTR', *v-qrə* 'to break (e.g. plates and cups as objects), TR'. This contrast is well illustrated in the elicited pair (4.11) and (4.12). As pointed out by Jacques (personal communication, September 11 2019) this can be seen as a case of (patient-preserving) lability where the verb root remains the same, but is conjugated either transitively or intransitively.

(4.11) *<p^{h}indzə>* *dæ-**q^{h}rə**-s^{h}i.*
bottle PFV-**break.PST**-IFR
The bottle broke (by itself, there is no external agent). (MEE)

(4.12) *<p^{h}indzə>* *dæ-**v-q^{h}rə**-s^{h}i.*
bottle PFV-**INV-break.PST.3**-IFR
(An unmentioned external agent) broke the bottle. (MEE)

Typological remark

Seen from an areal perspective, inverse systems exhibit uneven distribution. Even though such systems are relatively wide-spread among native American languages, the Gyalrongic and Northern Naga languages constitute the only Eurasian language group with consistent inverse systems (Jacques 2017a: 585; DeLancey, personal communication, September 11 2019).

4.3.3.3. Argument indexation suffixes and vowel fusion

The actual form of person marking in Geshiza is determined by the phonological shape of the verb. All eight full vowel phonemes (see §3.2.1) form their distinct conjugation group, the stem vowel of the verb fusing with that of the personal ending. In addition, six diphthongs are also present as stem vowels. Table 4.22. below lists the attested conjugation groups with examples.

The exact nature of the fusion of the verb root and personal endings varies depending on the phonological nature of the coda vowel (Table 4.23, following page). In addition to the vocalic argument indexation suffixes *-u* and *-i*, vowel quality of the verb root is also altered by the suffixes *-ŋ* and *-n* that historically included a vowel (see §4.3.3.1. *Historical remark*). The whole pattern is illustrated by transitive (Table 4.24) and intransitive (Table 4.25) verbs that are both subject to the same rules.

Table 4.22. Examples of Geshiza verbs ending in a vowel

Vowel	Example 1	Example 2	Example 3
i	*ɭji* ‘to wait’	*ɾji* ‘to wake up’	*v-tʰi* ‘to drink’
e	*ne* ‘to rest’	*ŋgæde* ‘to call, shout’	*v-se* ‘to know’
æ	*lmæmæ* ‘to cry’	*v-ræ* ‘to write’	*ɾjæ* ‘to ask’
a	*mdzola* ‘to wrap’	*ɾga* ‘to love’	*zra* ‘be shy of’
ə	*ɕə* ‘to go’	*jə* ‘to say’	*zjə* ‘to sell’
ɔ	*ndɔdɔ* ‘to be careful’	*sqʰlɔ* ‘to swallow’	*nzætsɔ* ’to squat’
o	*ndzo* ‘to sit, stay’	*ntɕʰo* ‘to have’	*vdo* ‘to see’
u	*mæmu* ‘to move’ INTR	*rdʑu* ‘to run’	*smu* ‘to row’
ue	*due* ‘to be clear (liquid)’	*kʰue* ‘to be in good shape’	*sʰue* ‘to wake up’
uæ	*v-kʰuæ* ‘to cut’ TR	*skʰuæ* ‘to cut’ INTR	n/a
ua	*ɕua* ‘to search’	*dʑua* ‘to swim’	*ʑua* ‘to throw’
uɔ	*dzuɔ* ‘to see stars (when rising up too fast)’	n/a	n/a
uə	*ŋuə* ‘copula’	*ŋkʰuə* ‘to put in’	*tsʰuə* ‘to be fat’
əu	*bəu* ‘to descend’	*ɲəu* ‘to be spicy’	*zgəu* ‘to cover’

Table 4.23. Overview of Geshiza conjugation groups and vowel fusion patterns

3 Σ	1SG Σ-*u*	1PL Σ-*ŋ*	2SG Σ-*i*	2PL Σ-*n*
i	*u*	*an*	*i*	*en*
e	*əu*	*an*	*e*	*en*
æ	*əu*	*oŋ*	*ɛ*	*æn*
a	*əu*	*oŋ*	*ɛ*	*an*
ə	*u*	*oŋ*	*i*	*ən, in*
ɔ	*əu*	*oŋ*	*ɛ*	*ɔn*
o	*o*	*oŋ*	*(u)e*	*on*
u	*u*	*oŋ*	*(u)i*	*un*
ue	n/a	*uan*	n/a	*uen*
uæ	*uəu*	*oŋ*	*uɛ*	*uæn*
ua	*uəu*	*uoŋ*[41]	*uɛ*	*uan*
uə	*u*	*oŋ*	*ui*	*uən*
əu	*əu*	*oŋ*	*e*	*əun*

Table 4.24. Examples of argument indexation in Geshiza transitive verbs

Root	1SG (Σ-*u*)	1PL (Σ-*ŋ*)	2SG (Σ-*i*)	2PL (Σ-*n*)	3 (Σ)	Gloss
i	*t^{h}u*	*t^{h}aŋ*	*t^{h}i*	*t^{h}en*	*v-t^{h}i*	to drink
e	*mbəu*	*mbaŋ*	*mbe*	*mben*	*mbe*	to steal
æ	*təu*	*toŋ*	*te*	*tæn*	*v-tæ*	to reach
a	*rəu*	*roŋ*	*re*	*ran*	*v-ra*	to hit
ə	*ru*	*roŋ*	*ri*	*ren*	*v-rə*	to buy
ɔ	*sq^{h}ləu*	*sq^{h}loŋ*	*sq^{h}le*	*sq^{h}ləun*	*sq^{h}lɔ*	to swallow
o	*zdʑo*	*zdʑoŋ*	*zdʑue*	*zdʑon*	*zdʑo*	to study
u	*rŋu*	*rŋoŋ*	*rŋui*	*rŋun*	*rŋu*	to fry
ue	n/a	n/a	n/a	n/a	n/a	n/a
uæ	*k^{h}uəu*	*k^{h}oŋ*	*k^{h}ue*	*k^{h}uæn*	*v-k^{h}uæ*	to cut
ua	*ɕuəu*	*ɕuoŋ*	*ɕue*	*ɕuan*	*v-ɕua*	to search
uə	*ŋk^{h}u*	*ŋk^{h}oŋ*	*ŋk^{h}ui*	*ŋk^{h}uən*	*ŋk^{h}uə*	to put in
əu	*rəu*	*roŋ*	*re*	*rəun*	*v-rəu*	to sew

[41] The verb *lxua* 'to appear' has *lx**uoŋ*** in lieu of the expected ***lx**uoŋ***.

Table 4.25. Examples of argument indexation in Geshiza intransitive verbs

Root	1 (Σ-ŋ)	2 (Σ-n)	3 (Σ)	Gloss
i	*ɾjan*	*ɾjin*	*ɾji*	to wake up
e	*pʰjan*	*pʰjen*	*pʰje*	to escape
æ	*joŋ*	*jæn*	*jæ*	to get drunk
a	*dzoŋ*	*dzan*	*dza*	to fall down
ə	*ɾgoŋ*	*ɾgən*	*ɾgə*	to sleep
ɔ	*ndɔdoŋ*	*ndɔdɔn*	*ndɔdɔ*	to be careful
o	*ŋoŋ*	*ŋon*	*ŋo*	to be sick
u	*rdʑoŋ*	*rdʑun*	*rdʑu*	to run
ue	*ɣuəɣuan*	*ɣuəɣuen*	*ɣuəɣue*	to quarrel
uæ	n/a	n/a	n/a	n/a
ua	*dʑuoŋ*	*dʑuan*	*dʑua*	to swim
uə	*ŋoŋ*	*ŋuən*	*ŋuə*	to be (copula)
əu	*boŋ*	*bəun*	*bəu*	to get off

Detailed rules

The place of articulation of the consonants in the verb root affects the vowel fusions when a suffix is added. The effects, however, are small and generally do not affect comprehensibility. The following two major patterns are attested:

Addition of -n *into roots with the schwa*

The vocalic quality after the addition of *-n* to a verb ending with *ə* has two values. As a general rule, the expected schwa surfaces: *ɾgə* 's/he sleeps', *ɾgən* 'you sleep'. The presence of an alveolo-palatal (*tɕ, tɕʰ, dʑ, ɕ, ɕʰ, ʑ*) or palatal (*ɲ, j*) consonant in the verb root triggers fronting of the schwa. The front vowel *i* is used for the vowel in such instances as the closest approximation in the Geshiza phonological system. To illustrate, *wjə* 's/he is hungry', *wjin* (**wjən*) 'you are hungry'; *ɕə* 's/he go', *ɕin* (**ɕən*) 'you go'; *jə* 's/he says', *jin* (**jən*) 'you say'.

Addition of -i *into roots with o and u*

As a general rule, the addition of *-i* into a root with *o* creates a fusional form *ue*: *kʰo* 's/he gives', *kʰue* 'you give'. Similarly, the addition of *-i* into a root with *u* results in the non-fusional form *ui*: *v-ɾu* 's/he pours' *ɾui* 'you pour'. The diphthongs are replaced by the monophthongs *e* and *i*, respectively, under the following circumstances. First, a directly preceding nasal (*m, n, ɲ, ŋ*) or approximant (*l, r, j*) requires a monophthongic form: *snəno* 's/he smells', *snəne* (**snənue*) 'you smell'; *smu* 's/he rows', *smi* (**smui*) 'you row'; *spʰro* 's/he sprinkles', *spʰre* (**spʰrue*) 'you sprinkle'. Second, the monophthongic forms are also triggered by *w* occurring in the preinitial position: *wɕʰo* 's/he sends', *wɕʰe* (**wɕʰue*) 'you send'; *wzo* 's/he plants', *wze* (**wzue*) 'you

plant'. Perhaps due to phonological similarity in its initial, the verb *vdo* 'to see' has a second person singular form *vde* (* *vdue*).

Codas and statistics

Coda of a Geshiza verb is defined here as the remaining part of a verb when the initial consonant or consonant cluster is removed from the last syllable, e.g. *-æ* in *v-tʰæpʰæ* 'to take out' and *-æl* in *mpʰæl* 'to increase'. The coda types branch into simple and complex ones. Simple codas (-V) comprise one of the eight phonemic vowels of Geshiza. In contrast, complex codas include either a diphthong (-VV) or a vowel accompanied by a final consonant (-VC). All four Geshiza final consonants *-n*, *-ŋ*, *-l*, *-r* (see §3.3.4) appear in the coda position. In the non-conjugated infinitive form, 'doubly complex' codas consisting of a diphthong followed by a final consonant (*-VVC) are absent in the collected source materials, resulting only from the addition of argument indexation suffixes.

Coda selection shows uneven distribution in Geshiza. In a sample of 630 verbs, 508 (81%) are simple and 122 (19%) complex. Second, coda types show uneven distribution category-internally. Beginning from simple codas, Figure 4.1. illustrates the frequency of all Geshiza vowels in coda position. The frequency largely reflects that of vowel frequencies in the language (see §3.2.1. *Frequency analysis*). As expected, the coda *-ɔ* occurs infrequently, being present only in 23 attested cases. Many, but not all of these cases result from borrowing from Tibetan: *ɕʰɔ* 'to be (too) many, surplus, left over' < *lhag* 'to be left, above, more than, excess'; *ntʰɔ* 'to weave (e.g. baskets from bamboo), embroider' < *'thag* 'to knit, weave'. In contrast, however, the strikingly low frequency of *-u* remains more challenging to explain.

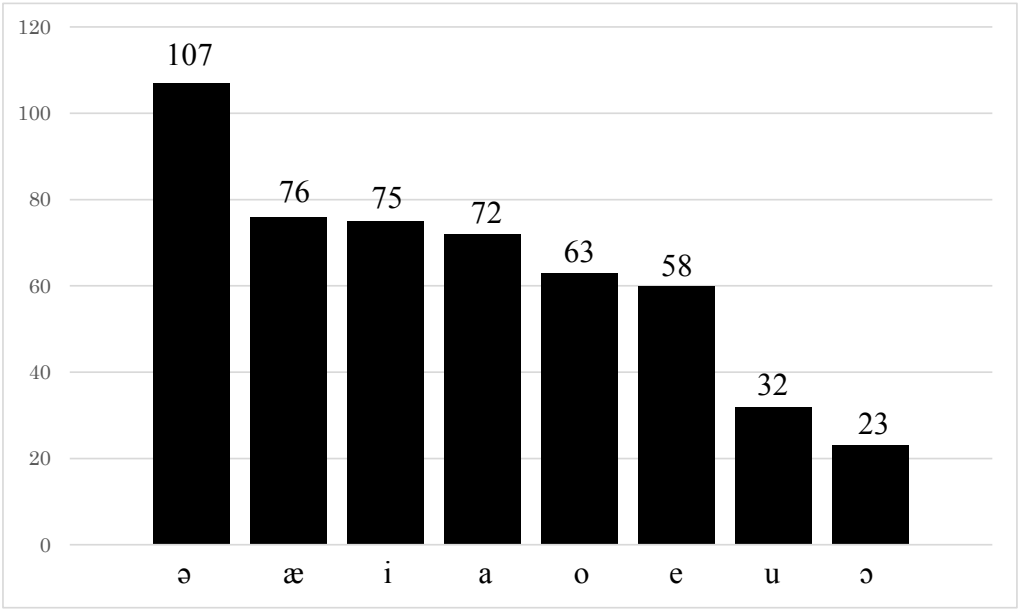


Figure 4.1. Frequencies of the eight basic vowels as simple verb codas (total 508 instances)

Diphthongs occur infrequently in coda position, constituting merely 61 cases (10%) of the sample of 630 verbs. All Geshiza diphthongs save *ui* and *uo* appear in the coda position, illustrated in Table 4.26 below. Strikingly, the coda *-əu* constitutes the majority case among all diphthong coda types, many such cases being historically consonant-final, as demonstrated by the Tibetan loanword *ltəu* 'to fold (once, e.g. clothes)' < *lteb* 'fold'.

Table 4.26. Frequencies of diphthongs in complex verb codas (total 61 instances)

V1	V2							
	i	e	æ	ə	a	ɔ	o	u
ə	n/a	n/a	n/a	n/a	n/a	n/a	n/a	*-əu* 37
u	n/a	*-ue* 2	*-uæ* 3	*-uə* 10	*-ua* 7	*-uɔ* 1	n/a	n/a

Finally, even though all Geshiza final consonants appear in the coda position, not all vowel and consonant combinations occur, the attested cases 61 cases (10%) being tabulated in 4.27. Since the overwhelming majority of 569 verbs (90%) in the sample have vowel codas in either diphthong or monophthong form, the deviating consonant codas require an explanation. Again, borrowing from Tibetan explains many cases: e.g. *srən* 'to bear, endure' < *sran* 'ibid.'; *ndʑər* 'to change' < *'gyur* 'to change, turn into'. Nevertheless, not all cases of complex codas are explainable through borrowing.

Table 4.27. Frequencies of final consonants in complex verb codas (total 60 instances)

Vowel	Final consonant			
	-n	*-ŋ*	*-l*	*-r*
i	*-in* 1			
e	(*-en* 0)			
æ	*-æn* 7		*-æl* 10	*-ær 2*1
ə	*-ən* 2		*-əl* 2	*-ər* 4
a	(*-an* 0)	(*-aŋ* 0)		*-ar* 4
o	(*-on* 0)	*-oŋ* 3		*-or* 5
u	(*-un* 0)	*-uŋ* 1		
ɔ	(*-ɔn* 0)			

The final consonant does not affect the conjugation of the verb that relies on the preceding vowel. In all forms except the third person citation form, the coda consonant is dropped before the addition of personal endings, for instance *zvær* 'to light, kindle' (stem) > *zvoŋ* 'we light'. The deletion takes place since Geshiza allows no final consonant clusters in its phonotactic constraints (see §3.3.1, §3.3.4).

In summary, Table 4.28 below lists with examples all coda types in Geshiza:

Table 4.28. Examples of all verb coda types

Coda type	Coda	Example 1	Example 2
Simple: -V	*-i*	*ɲji* 'to be red'	*rŋi* 'to borrow'
	-e	*ne* 'to rest, take a break'	*pʰje* 'to escape'
	-æ	*lmæmæ* to cry'	*rjæ* 'to ask'
	-ə	*jə* 'to say'	*rgə* 'to sleep'
	-a	*rga* 'to love'	*spa* 'to be thirsty'
	-o	*no* 'to smell'	*ro* 'to swell (body part)'
	-ɔ	*mdʑɔ* 'fast'	*tɕɔ* 'to be pleasant'
	-u	*lu* 'to be blind'	*smu* 'to row (boats)'
Complex: -VV	*-ue*	*due* 'to be clear (liquids)'	*kʰue* 'to be healthy'
	-uæ	*ŋkʰuæ* 'to extend'	*v-kʰuæ* 'to cut'
	-uə	*ŋkʰuə* 'to put, place in'	*tsʰuə* 'to be fat'
	-ua	*lxua* 'to come out, appear'	*ʑua* 'to throw'
	-uɔ	*dzuɔ* 'to see stars'	n/a
	-əu	*nəu* 'to be deep'	*zdəu* 'to marry'
Complex: -VC	*-in*	*stɕin* 'to crack (e.g. glass)'	n/a
	-æn	*ɖʐæn* 'to miss, remember'	*skæn* 'to have drought'
	-ən	*srən* 'to bear, endure'	*mbərlən* 'to plane'
	-oŋ	*doŋ* 'to be clever'	*zdʑoŋ* 'to have diarrhoea'
	-uŋ	*ŋkʰruŋ* 'to reincarnate'	n/a
	-æl	*mpʰæl* 'to increase'	*wæl* 'to disperse (clouds)'
	-əl	*ndəl* 'to grind'	*vtəl* 'to subdue, vanquish'
	-ær	*ŋkʰær* 'to vomit'	*smær* 'to like'
	-ər	*ndʑər* 'to change'	*wtɕʰər* 'to be sour'
	-ar	*dar* 'to age'	*vtsar* 'to get rusty'
	-or	*ɣor* 'to help'	*qʰor* 'to snore'

4.3.3.4. Paradigmatic irregularity

Argument indexation in Geshiza described above appears as highly regular. Some irregularities nevertheless exist in the system. Historical factors bound to become clearer in the future of Gyalrongic studies likely explain at least a part of the irregular behaviour.

First major irregularity arises from the fact that verbs with *i* and *e* as their stem vowels have *-n* in lieu of *-ŋ* as a personal suffix, resulting in the coda *-an*. To illustrate: *rji* 'S/he/it wakes up', *rjan* 'I wake up' instead of **rjaŋ,* **rjoŋ,* or **rjiŋ*. The exact reason for this behaviour remains unknown. Interestingly, however, also in other contexts in which *iŋ* would be expected, *an*

surfaces. For instance, *bkra shis rin chen* ***gling***, the Tibetan name for Buke monastery (see §2.7.1. *Tibetan Buddhism*) is borrowed into Geshiza as *ʈʂaɕʰi-rintɕʰin-****ɑ̊lan***, not as *ʈʂaɕʰi-rintɕʰin-****ɑ̊liŋ.*** Therefore, a historical sound change *iŋ > *an* may have occurred. Comparative data from Amdo Tibetan shows that the change -*iŋ > -aŋ has likely already happened in the donor lect of Tibetan, rather than in Geshiza itself (see Gong 2016a). For this reason, the phenomenon might be historically separate from that discussed at the beginning of the paragraph.

Second, individual verbs occasionally exhibit irregular vowel fusion. Two prominent cases are discussed herein. In the causative auxiliary *-pʰə* (see §4.3.8), *-pʰan* appears instead of the expected regular form **-pʰoŋ* with the argument indexation suffix *-ŋ* (Table 4.29). The light verb *və* (see §4.3.7.1) behaves in identical manner (Table 4.30) In both cases, the behaviour has a historical explanation. It is proposed that both verbs originally possessed an *-i* coda, in which case their conjugation appears completely regular. Comparative Gyalrongic data supports this hypothesis. For instance, in Wobzi Khroskyabs, the corresponding light verb appears as *vi* (Lai 2017). Also, in Tangut, a related extinct language, the likely cognate words appear as *wji*^{1} 'to do', *phji*^{1} 'to send, cause to do'.

Table 4.29. Conjugation of the causative auxiliary verb *-pʰə*

A \ P	1	2	3
1SG		*pʰən*	*pʰu*
1PL			***pʰan***
2 SG			*pʰi*
2PL	***pʰan***		*pʰən*
3		*pʰən*	*pʰə*

Table 4.30. Conjugation of the light verb *və*

A \ P	1	2	3
1SG		*ven*	*vu*
1PL			***van***
2 SG			*vi*
2PL	***van***		*ven*
3		*ven*	*və*

In addition, the verb *v-kʰo* 'to give' has a slightly irregular paradigm, illustrated in Table 4.31 on the following page. In inversion, the expected 1>2, 3>2 forms *(*v*)*-kʰon* are ungrammatical, *(v)-kʰuæn* being used instead. Anomalous behaviour in the verb 'give' is widely

attested cross-linguistically. For instance, Kittilä (2006) illustrates atypical behaviour of 'give' vis-à-vis other trivalent verbs in many languages.

Table 4.31. Conjugation of the verb *v-k^{h}o* 'to give'

A \ P	1	2	3
1SG		***k^{h}uæn***	*k^{h}o*
1PL			*k^{h}oŋ*
2 SG			*k^{h}ue*
2PL	*v-k^{h}oŋ*		*k^{h}on*
3		***v-k^{h}uæn***	*v-k^{h}o*

Finally, two transitive verbs in the source materials, namely *nwə* 'to roast' and *nʑæ* 'to bring' have slightly irregular paradigms, illustrated in Table 4.32. While the third person form includes a preinitial *n-*, the preinitial is absent from all other personal forms. Third person forms without the preinitial are judged ungrammatical: **wə, *ʑæ*.

Table 4.32. Two verbs with a nasal preinitial in the third person

Person	*nwə* 'to roast'	*nʑæ* 'to bring'
1SG	*wu*	*ʑəu*
1PL	*woŋ*	*ʑoŋ*
2SG	*wi*	*ʑe*
2PL	*wən*	*ʑæn*
3	*nwə*	*nʑæ*

4.3.4. Verb classes

From the viewpoint of argument indexation, Geshiza has four verb classes. Following a summary of the system (§4.3.4.1), each of the classes is discussed in detail this chapter. Classes 1 (§4.3.4.2) and 2 (§4.3.4.3) are intransitive, thus fundamentally differing from the transitive classes of 3 (§4.3.4.4) and 4 (§4.3.4.5). While transitivity value of a given verb is typically fixed, instances of ambitransitivity and alternation across verb classes can also be identified (§4.3.4.6).

4.3.4.1. Overview

Based on their argument indexation characteristics, Geshiza verbs form four distinct classes that form a binary-branching structure (Figure 4.2; following page). Transitivity forms the core of the system: at the most fundamental level, verbs of the language are divided into intransitive (class 1, class 2) and transitive (class 3, class 4). Inside classes 1 and 2, a further distinction into

stative verbs (classes 1a and 2a), and non-stative intransitive verbs (classes 1b and 2b) is made. Class 3 distinguishes between verbs that disallow (3a) and allow (3b) a speech-act-participant P argument, which are nevertheless never indexed. Class 4 contains all verbs that allow for the indexation of an SAP P argument. Every Geshiza verb can be placed into the model, including the light verbs (see §4.3.7.1); copulas and auxiliaries (see §4.3.8); and existential verbs (see §7.6). The findings herein resemble those of Shirai (2002), a second-hand study on Geshiza person marking with Duo'erji (1997) as the source.

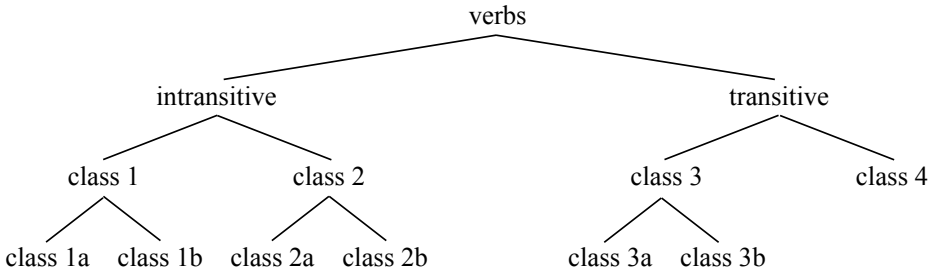


Figure 4.2. Verb classes in Geshiza: a summary

Statistical overview

A sample of 561 analysed verbs shows that the seven verb subclasses vary greatly in terms of verbs contained. The distribution of the verbs across verb classes is illustrated in Figure 4.3. Transitive 3b verbs (28%) form the largest class, followed by almost equally large classes 2b (22%) and 1b (22%). Class 4 (14%) is equally relatively large. In contrast, class 1a (10%) constitutes a major type in the system. Finally, the classes 2a (2%) and 3a (2%) are highly marginal.

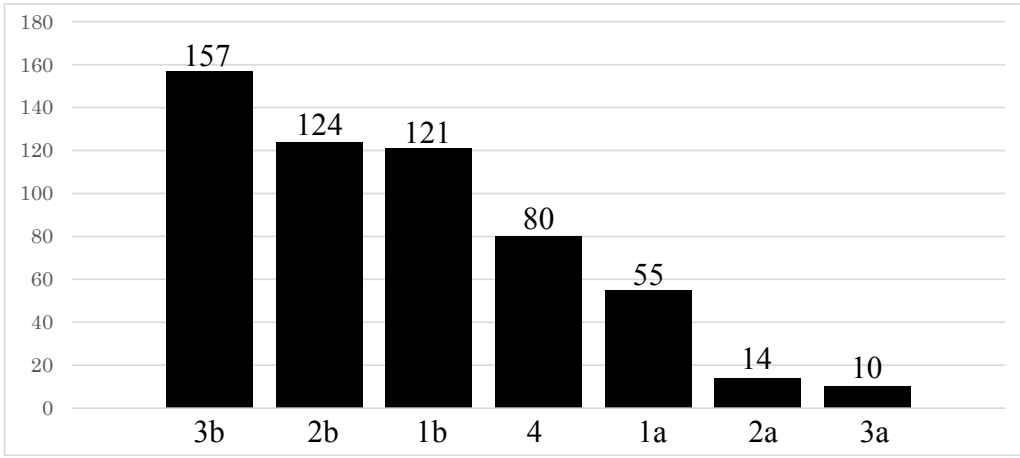


Figure 4.3. Distribution of verbs among the subclasses (total 561 instances

Summary of the verb classes

Table 4.33 below presents a summary of the Geshiza verb classes. Before moving to detailed treatment of each class, the following discussion sketches the focal properties of the classes.

Table 4.33. Summary of Geshiza verb classes

S&A\P	Class 1	Class 2	Class 3			Class 4		
	INTR	INTR	1	2	3	1	2	3
1SG	Σ	Σ-*ŋ*		Σ-*w*			Σ-*n*	Σ-*w*
1PL				Σ-*ŋ*				Σ-*ŋ*
2SG		Σ-*n*	Σ-*i*		Σ-*i*	*v*-Σ-*ŋ*		Σ-*i*
2PL			Σ-*n*		Σ-*n*			Σ-*n*
3		Σ	*v*-Σ				*v*-Σ-*n*	v-*Σ*

Classes 2 and 4 constitute the core of the system. Consequently, classes 1 and 3 are largely interpretable as reductions from classes 2 and 4, respectively, a fact that further emphasises the fundamental division of Geshiza verbs into two major groups based on their transitivity value.

Verbal semantics determines the argument indexation properties of a verb. Animacy in the wide sense, and the contrast between SAPs and non-SAPs more specifically play a pivotal role in the system. Verbs that allow (animate) human S and P arguments are subsequently automatically compatible with speech-act-participant S and A arguments, respectively, as well. Conversely, verbs incompatible with animate human S and A arguments lack compatibility with respective speech-act-participant S and A arguments, which leads into reduced argument indexation properties.

Classes 1 and 2 comprise the intransitive verbs of Geshiza. These can be further divided into stative verbs (1a and 2a) and non-stative verbs (1b and 2b), the latter category comprising all intransitive verbs that are not stative. Geshiza stative verbs lack tropative derivation (ADJ > to find or consider X ADJ), a mechanism reported for Japhug Gyalrongic and likely present more widely in Gyalrongic languages: e.g. *mpɕɤr* 'be beautiful' > *nɤ-mpɕɤr* 'find X beautiful' (Jacques 2013a).

Summarising the difference between the two stative verb groups, verbs in class 2a are compatible with a human animate S: *bji* 'to be tall', *tɕʰæ* 'to be big'. This compatibility makes it possible for the verbs to be used with speech-act participant S argument, namely with the first and second persons, resulting in maximally three distinct forms. In contrast, stative verbs in class 1a are in general not compatible with animate human subjects, either in a concrete manner of through conventional metaphors of the Geshiza: *ɑ̂næ* 'to be dark', *ɲəu* 'to be spicy'. Due to this incompatibility, these verbs cannot be used with the SAPs, which results in them lacking argument indexation.

Classes 1b and 2b contain all the non-stative intransitive verbs of Geshiza. Their

distribution is explained as follows. The intransitive class 2b comprises verbs compatible with animate human S arguments marked with the absolutive, which allows the indexation of the first and second persons. In contrast, class 1a predominantly contains verbs that are not compatible with animate human S arguments: *bræ* 'to stop raining', *ɻarə* 'to bark'. Such verbs are incompatible with SAPs and cannot thus index the first and second persons, which makes the subclass 1a non-conjugational. As an exception, a minor part of class 1a verbs are compatible with animate human S argument: *ɻadi* 'to be mistaken', *ɖzɻæn* 'to remember, miss'. These Experiencer subjects (see §7.4.5) are nevertheless Experiencers marked with the genitive. Since only absolute case subjects index person, class 1a verbs have no conjugation, all forms colliding with the zero-marked third person. The requirement is absolute, with no leeway of using such verbs with indexational properties pertaining to class 2b, namely the absolute subject and indexation of three persons.

Class 3 includes transitive verbs that index three persons and number of the subject, which creates a matrix of maximally five distinct forms. The following two defining characteristic of class 3 differentiate it from class 4 discussed further below. First, inversion is present only in the third person where it is universally marked by the inverse prefix *v-*, (see §4.3.3.2). Inversion is a grammatical phenomenon the details of which remain under debate (Zúñiga 2007: 199), involving different marking for different transitive scenarios based on the participants' relative positions along an accessibility hierarchy, e.g. a referential and/or ontological hierarchy (see the definition of Siewierska 1998/2013 or the related notion of hierarchical alignment). A speech-act participant P argument is never indexed in class 3 verbs, and the inverse never appears in contexts with speech-act participant P arguments. Inversion thus shows only limited appearance among class 3 verbs. Second, in addition to introducing the inverse prefix, the functional range of *-ŋ* and *-i* narrows to plural context only, as a result from newly-introduced argument indexation morphemes *-u* (first person singular) and *-i* (second person singular).

Class 4 contains transitive verbs where like in class 3, the third person scenario is marked by the inverse prefix *v-*. In other contexts, the speech-act participant A argument with two persons (1, 2) and two numbers (SG, PL) is indexed when the P argument is a non-SAP, and the speech-act participant P argument with two persons (1, 2) without number distinction is indexed other cases. Consequently, regular class 4 verbs exhibit maximally seven distinct forms (see §4.3.3.4 for the irregular *v-k^{h}o* (V4) 'to give' having exceptionally eight distinct forms).

The differing argument indexation properties in classes 3 and 4 can be explained *grosso modo* as follows. Class 3 includes transitive verbs that often require a non-animate non-human P argument and are thus incompatible with speech-act-participant P arguments: *v-tə* 'to dance', *v-gə* 'to wear'. Even when such a P argument is possible, like in the exceptional subclass of hitting verbs, it is never indexed to the verb. Such cases constitute the 3b subclass. In contrast, class 4 only includes verbs that are compatible with animate human P arguments, which makes them fully inversional in cases of speech-act-participant P arguments: *v-s^{h}æ* 'to kill'.

Table 4.34. Examples of Geshiza verb conjugation

	Class 1	Class 2	Class 3 TR			Class 4 TR		
S&A\P	INTR	INTR	1	2	3	1	2	3
	EXV	to sit	to hit			to kill		
1SG	*də*	*ndzo-ŋ*		*ra-u* > *rəu*			s^{h}*æ-n*	s^{h}*æ-u* > s^{h}*əu*
1PL				*ra-ŋ* > *roŋ*				s^{h}*æ-ŋ* > s^{h}*oŋ*
2SG		*ndzo-n*	*rə-i* > *rɛ*		*rə-i* > *rɛ*	*v-*s^{h}*æ-ŋ* > *v-*s^{h}*oŋ*		s^{h}*æ-i* > s^{h}*ɛ*
2PL			*ra-n*		*ra-n*			s^{h}*æ-n*
3		*ndzo*	*v-ra*				*v-*s^{h}*æ-n*	*v-*s^{h}*æ*

Table 4.34 above is a summary of the system in practice. The existential verb *də* from class 1 lacks argument indexation altogether and as a result exhibits only one form. The class 2 intransitive verb *ndzo* 'to sit' conjugates by indexing the person of the S, yet with no number distinctions: e.g. *ndzoŋ* 'I sit, we sit'. The class 3 verb *v-ra* 'to hit' indexes both person and number of the A in SAPs while disregarding the object and shows the inverse prefix *-v* in only in third person only: *rəu* 'I will hit', *v-ra* 'He/she/it hits'. The introduction of the category of number triggers the need for dedicated singular person indexation suffixes, which halves the erstwhile functional scope of-*ŋ* and *-n* into plural contexts only. Finally, in class 4, the verb *v-*s^{h}*æ* 'to kill' indexes both the person and number of the subject when a non-SAP, i.e. a third person, is the A; the inverse prefix *-v* is present in the third person scenario. In these two aspects, the verb displays behaviour identical to class 3 *v-ra* 'to hit'. What differs, however, is the introduction of a full inverse scenario in which the person, but not number, of an SAP is indexed when it is the P argument. The indexation mechanism combines the inverse prefix *-v* with the same person markers class 2 verbs exhibit, but due to the inverse scenario, in a P and not S function. Thus, depending on the context, *v-*s^{h}*oŋ* can equally mean 'He/she/it/they kill me/us' or 'You.SG/you.PL kill me/us'.

4.3.4.2. Class 1

A subcategory of Geshiza verbs lack any conjugational properties and categorised here as class 1 verbs. The class branches into stative (class 1a) and non-stative verbs (class 1b). Even though these verbs lack argument indexation, formal requirements dictate that they take a form identical to the third person forms of other verb classes (and not for example, a form identical to the first person).

Class 1a:

Table 4.35 below offers examples of class 1a stative verbs. All verbs of the class can be adjectivised with the derivational prefix *gæ-* or reduplication (see §4.4 for adjectives as a word class and §6.2.3.2 for adjective formation by derivation). No phonological or semantic factors control the selection of the strategy; the applied strategy is determined on an individual basis. Semantically, class 1a stative verbs primarily express gustative properties, physical properties, dimension, quantity, subjective evaluation, value, and colour:

Table 4.35. Examples of class 1a stative verbs by semantic fields

Type	Example	Gloss	Adj. derivation	Gloss
Gustative properties	*ɲəu*	to be spicy (food)	*gæ-ɲəu*	spicy
	ŋær	to be strong (alcohol)	*gæ-ŋær*	strong
	ʑo	to be delicious, tasty	*gæ-ʑo*	delicious
	wtɕʰər	to be sour	*wtɕʰər~wtɕʰər*	sour
Physical properties	*ɑ̰næ*	to be dark	*ɑ̰næ~ɑ̰næ*	dark
	ɑ̰sər	to be tight	*ɑ̰sə~ɑ̰sə*	tight
	nvə	to be soft	*nvə~nvə*	soft
	lŋo	to be empty	*lŋo~lgo*	empty
Dimension	*dʑi*	to be long	*gæ-dʑi*	long
	nəu	to be deep	*gæ-nəu*	deep
	ro	to be narrow	*ro~ro*	narrow
	ʑə	to be wide	*gæ-ʑə*	wide
Quantity	*dʑo*	to be many	*dʑo~dʑo*	many
	rdʑe	to be abundant	*rdʑe~rdʑe*	abundant
Subjective evaluation	*ɑ̰du*	to be harmful	*gɔ-du*	harmful
	mɲæn	to be equal, even	*mɲæn~mɲæn*	equal
	rka	to be hard, difficult	*gæ-rka*	hard, difficult
	ʑæʑæ	to be easy	*gæ-ʑæʑæ*	easy
Value	*ɑ̰jær*	to be good	*gɔ-jær*	good
	ŋi	to be good, okay	*gæ-ŋi*	good, okay
	qʰi	to be bad	*qʰi~qʰi*	bad
Colour	*ɲa*	to be black	*ɲa~ɲa*	black
	pʰru	to be white	*pʰru~pʰru*	white
	ɪŋə	to be light green	*ɪŋə~ɪŋə*	light green
	rŋə	to be green, light blue	*rŋə~rŋə*	green, light blue
	ɲji	to be red	*ɲji~ɲji*	red

Class 1b:

Class 1 also includes intransitive verbs that are non-stative, these verbs forming the subclass 1b, examples of which can be seen in Table 4.36 below. Morphologically, stative and non-stative verbs in class 1 differ by the fact that the latter lack adjective derivation: *zdo* 'to be cloudy' > **zdo~zdo, *gæ-zdo* with the intended meaning 'cloudy, overcast'. Semantically, the verb class covers existential verbs of non-animate existence, some modal verbs, weather verbs, verbs of animal activities, process verbs describing a change of state, verbs of subjective evaluation, verbs of mental processes, and verbs of sensory impression.

Table 4.36. Examples of class 1b non-stative verbs by semantic fields

Type	Example	Gloss
Existential verbs	*də*	inanimate existential verb
	ma	negative existential verb
	wi	inalienable existential verb
Modal verbs	*mə-grə*	to not be able
	mə-ske	should not
	sko	to manage, be able
Weather phenomena	*bræ*	to stop raining
	zdo	to be cloudy, overcast
	ʑu	to be clear
Animal activities	*ɑ̰rə*	to bark (dogs)
	bri	to crow (cock, rooster)
	ŋʧ̰sulu	to dig the ground with a snout (pig)
Processes with a change of state	*brə*	to break (fabric and clothes)
	dʑə	to melt (e.g. butter)
	ʂnele	to wither (plants)
Uncontrollable bodily functions	*ro*	to swell (body part)
	spæ	to suppurate, discharge pus
	wɕi	to sweat
Mental processes	*ɑ̰di*	to be mistaken
	ɖʐæn	to remember, to miss
	jæl	to become sober (after drinking)
Sensory impression	*ɑ̰jə*	to be itchy
	no	to smell
	zvæ	to feel numb

4.3.4.3. Class 2

Class 2 consists of stative verbs compatible with animate human subjects and other intransitive verbs. Along this axis, the class is subdivided into class 2a (stative verbs) and class 2b (intransitive verbs proper). Both classes share the same argument indexation properties, namely indexing an absolutive-case subject, but not its number (4.13). This results in maximally three distinct forms, as summarised in Table 4.37.

(4.13)	*tɕʰoŋ-ræ.*	*tɕʰæn-ræ.*	*tɕʰæ-ræ.*
	be.big.NPST.1-SENS	be.big.NPST.2-SENS	be.big.NPST.3-SENS
	I am/we are big.	You (singular or plural) are big.	He/she/it/they is/are big.

Table 4.37. Argument indexation in class 2 verbs

SUBJECT PERSON	1	2	3
INDEXATION	Σ-*ŋ*	Σ-*n*	Σ

Class 2a:

Class 2a stative verbs are linked to animacy, since all member forms must be compatible with an animate human S argument, which allows the use of the SAP forms 'I' and 'you'. Class 2a stative verbs code human propensities, such as physical size and appearance (*tsʰuə* 'to be fat', *mdze* 'to be beautiful'), and mental states and skills (*stɕe* 'to be happy', *ʤɻɔ* 'to be competent, capable'). In addition to this, a part of class 2a verbs can be used with non-human referents. For instance, *mdze* 'to be beautiful' may equally be used to describe a third person non-animate referent.

Table 4.38. on the following page lists all identified class 2a stative verbs in Geshiza. With 23 attested stative verbs, the class has a limited scope. Furthermore, as illustrated in the table, all monosyllabic class 2a stative verbs can be adjectivised either through reduplication or the uses of the adjectivising prefix *gæ-*. This results in near-synonymous lexical pairs in which one member is a verb and the other an adjective.

Table 4.38. Class 2a stative verbs in Geshiza

Class 2a verb	Gloss	Adj. derivation	Gloss
bji	to be tall, high	*gæ-bji*	tall, high
ʤʑɔ	to be competent, capable	*gæ-ʤʑɔ*	capable, competent
doŋ	to be clever, intelligent	*gæ-doŋ*	clever, intelligent
kʰrəwdə	to be handsome, beautiful	*gæ-kʰrəwdə*	handsome, beautiful
ldə	to be heavy	*gæ-ldə*	heavy
mærəu	to be low class, vulgar	*gæ-mærəu*	low class, vulgar
mdze	to be beautiful	*gæ-mdze*	beautiful
mtɕʰær	to be handsome, beautiful	*gæ-mtɕʰær*	handsome, beautiful
nzən	to be 'tight-lipped'	*gæ-nzən*	'tight-lipped'
ndʑu	to be extraordinary	*gæ-ndʑu*	extraordinary
ɴqʰi	to be thin (people)	*ɴqʰi~ɴqʰi*	thin (people)
qʰi	to be ferocious, good at	*gæ-qʰi*	ferocious, good at
rdzu	to be handsome (men)	*gæ-rdzu*	handsome (men)
rkʰæ	to be good at, skilful	*gæ-rkʰæ*	good at, skilful
stɕe	to be happy	*gæ-stɕe*	happy
tsʰuə	to be fat	*gæ-tsʰuə*	fat
tɕʰæ	to be big	*gæ-tɕʰæ*	big
vɣi	to be arrogant, fearless of others, and thinking high of him/herself	*gæ-vɣi*	arrogant, fearless of others, and thinking high of him/herself
vtsʰe	to be rich, wealthy	*gæ-vtsʰe*	wealthy
wre	to be many	*gæ-wre*	many
wtsʰo	to be weak	*wtsʰo~wtsʰo*	weak
wzə	to be few	*wzə~wzə*	few
zdu	to be pitiable	*gæ-zdu*	pitiable

Since class 2a verbs behave morphosyntactically like verbs with a predicate function, they host the multifunctional verbal prefixes with frequent aspectual functions (4.14). This behaviour sets them apart from adjectives that appear as copula complements, being incompatible with aspectual marking and argument indexation (4.15, following page):

(4.14) *o* *bəvi* *<tɕʰi-jyefən>* *skæra* *be* *dæ-lxua-sʰi.*
INTERJ this.year seven-month about flood PFV-appear.3-IFR
At approximately in July this year, there was a flood.

bəvi=be ***dæ-tɕæ-sʰi***
this.year=also **PFV-be.big.PST.3-IFR**
The flood was a big one this year. (RN: local history)

(4.15) *tʰə* *ʐato* ***gæ-tɕʰæ*** *ŋuə-ræ.*
DEM prayer.recital **ADJZ-big** COP.3-SENS
It is a big prayer recital. (RN: ethnographic description)

Class 2b:

The subclass 2b includes all the non-stative intransitive verbs of the class 2a. The class shares its person indexation properties with 2a, resulting in indexation of three subject persons with no number distinctions (4.16-4.18):

(4.16) *nærbəpʰu* *æ-rja* ***dæ-ndzoŋ.***
TOPN one-CLF.night **PFV-stay.1**
I/we stayed one night at *nærbəpʰu.* (RN: personal history)

(4.17) *ɲi* *ætɕʰə-bələ* ***ndzon.***
2SG what-approximately **stay.2**
How long will you stay? (UA)

(4.18) *<ʈʂʰetsə>=nɔ* *ŋuæ-ɣi* ***dæ-ndzo.***
car=LOC five-CLF.person **PFV-sit.3**
Five people sat inside the car. (RN: procedure)

In contrast to class 1b non-stative verbs lacking argument indexation, many, but not all class 2b verbs express controllable and volitional action. From the viewpoint of the subject, class 2b intransitive verbs can be divided into the morphosyntactic group of extended transitives and the main semantic subgroups of reciprocal action; locomotion (path and manner of motion); change of posture; body activity; feelings and sentiments; change of mental state and consciousness; animate existential verbs; and the copulas (Table 4.39; following page):

Table 4.39. Examples of class 2b verbs by semantic fields

Semantic category	*Example*	Gloss
Extended intransitives	*ɣor*	to help (someone)
+controllable	*dʑə*	to meet (someone)
	jə	to say (something to someone)
	ŋuə	to own money (for someone)
Reciprocal action	*ɑ̰məmə*	to discuss
+ controllable	*ɑ̰rara*	to fight
	nɕʰɔ~ɕʰɔ	to joke or jest in pairs
	ntʰantʰa	to argue (verbal)
Movement	*dʑua*	to swim
+ controllable	*rdʑu*	to run
	ɕə	to go
	ʑe	to come
Change of posture	*nzætsɔ*	to squat
+ controllable	*m-bærbær*	to bend the upper body
	rji	to stand up, wake up
	rŋæqə	to kneel
Change of location or	*ɑ̰le*	to fall (horizontally)
posture	*dza*	to fall (vertically)
- controllable	*ŋɣædzo*	to stumble, trip
Body activity	*lmazə*	to give birth
- controllable	*lmæmæ*	to cry
	ŋkʰær	to vomit
	qʰor	to snore
Feelings and sentiments	*ŋo*	to ache, hurt, be sick
- controllable	*ɲjəu*	to be sleepy
	spa	to be thirsty
	vkʰə	to be full (of eating)
Change of mental state	*jæ*	to become drunk
and consciousness	*kjo*	to get angry
- controllable	*ŋɖʑ̰ere*	to become happy, rejoice
	sʰæ	to die
Animate existence	*dʑi*	animate existential verb
- controllable	*mdʑi*	existential verb (part of a group)
	ndʑə	existential verb (inside a container)
Copulas	*ŋuə*	affirmative copula
	mɲa ~ mja	negative copula

As already mentioned, class 2b Intransitive verbs index the person, but not its number, which results in maximally of three distinct forms. If the verb stem has a final *-n*, the actual number of distinct forms collapses into two, since the person suffix *-n* also marks the second person for intransitive verbs. To illustrate, in Table 4.40, the class 2b verb *ndzo* 'to sit, stay' has no final nasal and thus distinguishes three distinct forms. However, the verbs *srən* 'to bear, endure' and *mp^{h}æn* 'to suffer financial loss' have a final nasal in the third person citation form, resulting in a merger with the second person form and first person form respectively. All verbs including a final *-ŋ* belong to class 1, so no ambiguity arises in such cases.

Table 4.40. Class 2b verbs with final *-n*

Person	Ending	'to sit, stay'	'to bear, endure'	'to suffer financial loss'
1	*-ŋ*	*ndzoŋ*	*sroŋ*	*mp^{h}oŋ*
2	*-n*	*ndzon*	***srən***	***mp^{h}æn***
3	*-ø*	*ndzo*		

4.3.4.4. Class 3

In contrast to classes 1 and 2, classes 3 and 4 contain the transitive verbs of Geshiza. A verb can be identified as transitive from the ergative-marked A argument, the presence of the inverse prefix *v-*, and from indexing the category of number lacking in intransitive verbs. Since ergativity marking is not compulsory on A argument SAPs (see §5.3.2; §7.4.1) and the surfacing of the inverse prefix *v-* faces constraints due to phonotactics (see §4.3.3.2), the last criterion of number indexation on the verb provides the clearest giveaway and a sufficient criterion for transitivity.

Previously, semantic factors concerning animacy of the subject were shown to play a major role in the division of intransitive verbs into classes 1 and 2. The transitive classes 3 and 4 differ in a similar fashion, but in terms of animacy of the object. As a general tendency, class 3 includes the transitive verbs incompatible with animate human P arguments, and thus also with speech-act-participant P arguments, while verbs in class 4 are compatible with those.

Class 3 transitive verbs index the subject person and number, except in the number-neutral third person, resulting in maximally five distinct forms: SG, 1PL, 2SG, 2PL, 3 (4.19):

(4.19)

t^{h}u	*t^{h}an*	*t^{h}i*	*t^{h}en*
drink.NPST.1SG	drink.NPST.1PL	drink.NPST.2SG	drink.NPST.2PL
I drink.	We drink.	You (SG) drink.	You (PL) drink.

v-t^{h}i
drink.NPST.3
He/she/it/they drink(s).

The argument indexation suffixes *-ŋ* and *-n* for the first and second person narrow their scope into first and second person plural, respectively. In tandem, new singular S argument markers in the first and second person, *-u* and *-i* are introduced. As illustrated in Table 4.41, the two-part process can be visualised as a 'split' in the first and second person from numerically non-distinct uniform intransitive forms into transitive forms distinguishing the singular and plural numbers:

Table 4.41. Change of argument indexation properties from class 2 to class 3

Person	Class 2 argument indexation	Class 3 argument indexation
1SG	Σ-*ŋ*	new form Σ-*u*
1PL	Σ-*ŋ* ⟶	Σ-*ŋ*
2SG	Σ-*n*	new form Σ-*i*
2PL	Σ-*n* ⟶	Σ-*n*
3	Σ	Σ

Before discussing the individual subclasses 3a and 3b in detail, their difference requires explanation. As mentioned above, generally, class 3 verbs are generally incompatible with animate human P arguments and thus with speech-act-participant P arguments. A small subset of class 3 verbs, however, defy this general characterisation by allowing animate human P arguments. This makes it possible to use such for speech-act-participant P arguments. These 3a verbs thus differ from 3b verbs where no speech-act-participant P arguments are possible. They also differ from class 4 verbs by indexing the A, and not the P, in SAPs. It follows that no inversion ever takes place in SAP-SAP interaction. Verb class 3 as a whole is summarised in Table 4.42, with the forms available only in 3a indicated with parentheses:

Table 4.42. Argument indexation in class 3

A \ P	1	2	3
1SG		(Σ-*u*)	Σ-*u*
1PL		(Σ-*ŋ*)	Σ-*ŋ*
2 SG	(Σ-*i*)		Σ-*i*
2PL	(Σ-*n*)		Σ-*n*
3	(*v*-Σ)	(*v*-Σ)	*v*-Σ

Class 3a:

Class 3a verbs are few in comparison to class 3b and 4, all attested instances listed in Table 4.43. The object of class 3b verbs mostly receives compulsory dative marking (4.20), the removal of which results in ungrammatical utterances. Also, conjugating a class 3a verb according to class 4 is equally deemed ungrammatical. The restriction is absolute. For instance, a speech-act-participant P argument in class 4 would dictate the indexation of the P, rather than the A, but such argument indexation in class 3 verbs results in grammatically incorrect declination forms (4.21):

(4.20) *ŋa* *ɲi=ke* ***rəu.***
1SG 2SG=DAT **hit.1SG**
I hit you. (indexing the SAP subject *ŋa* 'I')

(4.21) **ŋa* *ɲi=ke* ***ræn.***
1SG 2SG=DAT **hit.2**
Intended meaning: I hit you. (REJ: indexing the SAP object *ɲi* 'you')

Many of the dative-marked class 3 express physical impact, typically in the form of violence. The two verbs *ntɕa* 'to make friends' and *zdəu* 'to marry' are exceptional, since they mark the P argument with an optional comitative. As a hypothesis for the existence of class 3a, it is proposed that the human is conceptualised spatially as a location, as in the example, rather than as a saliently affected object.

Table 4.43. Class 3a verbs in Geshiza

Verb	Gloss	Object
v-dæ	to criticise, hit and scold	DAT: person criticised, hit, or scolded
v-ra	to hit	DAT: person, animal, or thing hit
rtɕ^{h}æ	to bite	DAT: person, animal, or thing bitten
ndə	to stab	DAT: person, animal, or thing stabbed
nts^{h}ərvæ	to scratch	DAT: person, animal, or thing scratched
nts^{h}u	to point at	DAT: person, animal, or thing pointed at
ɾgu	to hit with a fist	DAT: person, animal, or thing hit
ɾguə-lu	to hit with a fist	DAT: person, animal, or thing hit
rts^{h}o	to kick	DAT: person, animal, or thing kicked
v-t^{h}əu	to approach, get close	DAT: person, animal, or thing approached
wʑele	to stroke	DAT: person, animal, or thing stroked
ntɕa	to make friends	optional COM: person made friends with
zdəu	to marry	optional COM: person married

Class 3b:

Class 3b verbs greatly outnumber class 3a verbs discussed previously. They disallow animate human P arguments, which makes them incompatible with speech-act-participant P arguments, e.g. *'I wear you'. Such verbs frequently have a preferred non-human object, such as *mdʑə* 'dance' for *v-tə* 'to dance dances'. Most of class 3b verbs nevertheless accept a wide range of non-human objects that predominantly appear in the absolutive case. Table 4.44 below gives examples of class 3 verbs arranged semantically:

Table 4.44. Examples of Class 3b verbs by semantic fields

Semantic type	Example	Gloss
Insertion and removal	*v-ru*	to pour
	sti	to put, place, leave
	v-ɣa	to lift off (e.g. a lid)
	v-tʰæpʰæ	to take out
Relocation:	*nʑæ*	to bring (towards speaker)
in, out, and neutral	*mbe*	to carry (away from speaker)
	mpʰæsle	to turn inside-out, upside-down, reverse
	v-qe	to drive, herd (animals)
Redistribution:	*z-bə*	to pile
in, out and neutral	*rtɕʰe*	to tie together, to bundle up
	spʰro	to sprinkle (seeds)
	s-tʰoʑə	to mix
Fixation and release	*ltʰja*	to connect
	pʰrəu	to leash, fasten (an animal)
	slu	to release accidentally
	v-tʰa	to attach, join
Force:	*mdʑædʑə*	to twist, bend
cis-locative, trans-	*ŋʂʈʰæ*	to pull
locative, and neutral	*v-zəu*	to press
	v-tʰo	to pull (noodles)
Cutting and breaking	*ʐɕə*	to break (sticks)
	v-ɖʐə	to saw (a log into blanks)
	v-kʰuæ	to cut (general)
	mto	to cut into pieces
State modification	*v-kʰji*	to dry (clothes)
	v-tɕe	to castrate
	zɣe	to boil, cook
	vzə	to fix, repair

Creation	*nt^{h}ɔ*	to weave, embroider
	v-ræ	to write
	v-t^{h}o	to build (houses)
	vtsu	to found, establish
Performance	*zla*	to sing, recite
	rdʑəu	to divine
	v-tə	to dance
	zgru	to recite Tibetan religious scripture
Instrumental	*m-p^{h}rəu*	to wear (shoes)
	rtsənt^{h}əu	to cut with scissors
	smu	to row (boats)
	zde	to play (wind instruments)
Digestion	*v-jə*	to taste, sample
	ŋkaka	to chew
	sq^{h}lɔ	to swallow
	v-t^{h}i	to drink
Mental activity	*nts^{h}ə*	to think
	nzli	to dream
	rtsi	to count
	wro	to imagine, think (mistakenly)
Possession, acquisition and dispossession	*ntɕ^{h}o*	to have
	v-rə	to buy
	rŋi	to borrow
	zjə	to sell
Movement	*lt^{h}ja*	to climb (trees)
	ltu	to wade (a river)
	v-t^{h}æ	to reach (a place)

4.3.4.5. Class 4

Class 4 transitive verbs exhibit the most complex argument indexation pattern in Geshiza. In contrast to the bulk of class 3 verbs, verbs in class 4 are compatible with animate human P arguments, which makes them compatible with speech-act-participant P arguments as well. Table 4.45 on the following lists all possible argument indexation patterns in this class:

Table 4.45. Argument indexation in class 4

A \ P	1 (P indexed)	2 (P indexed)	3 (A indexed)
1SG		Σ-*n*	Σ-*u*
1PL			Σ-*ŋ*
2 SG	*v*-Σ-*ŋ*		Σ-*i*
2PL			Σ-*n*
3		*v*-Σ-*n*	*v*-Σ

Class 4 verbs can index both A and P, the choice of which relies on the distinction between SAPs vs. non-SAPs (cf. Sun & Tian 2013 on Gexi Horpa). The verb agrees with P when SAPs interact. For instance, in (4.22, 4.23), the verb *v-s^{h}æ* 'to kill' agrees with the second person rather than the first person in SAP interaction. Also, class 4 verbs agree with the more salient element in accessibility (animacy) hierarchy when SAPs and non-SAPs interact. In other words, in SAP (A) non-SAP (P) interaction, the verb agrees with the SAP (A). Conversely, in SAP (P) non-SAP (A) interaction the verb agrees with the SAP (A).

(4.22) *ɲi* *xə=nts^{h}e* *xo* *rjəu* *mɛ-ɕ^{h}in* *tɕ^{h}a*
2SG DEM=ASS.GEN DEM.LOC wife ASP.NEG-go.PST.2 COND

s^{h}æn.
kill.NPST.2
If you don't marry into their household, I will kill you! (MEE: interview; see 2.4.2. concerning arranged marriages among the Geshiza in the past)

(4.23) **ɲi* *xə=nts^{h}e* *xo* *rjəu* *mɛ-ɕ^{h}in* *tɕ^{h}a*
2SG DEM=ASS.GEN DEM.LOC wife ASP.NEG-go.PST.2 COND

s^{h}əu.
kill. NPST.1SG
Intended meaning: If you don't marry into their household, I will kill you! (REJ; see 4.22)

As in the case of class 3b verbs, listing all possible semantic categories of class 4 is impossible in this outline of Geshiza grammar. To illustrate the verb class, several prominent semantic categories are offered in Table 4.46 on the following page:

Table 4.46. Examples of class 4 verbs by semantic fields

Semantic category	Example	Gloss
Mental and sensory activity	*mdʑəska*	to watch
	v-q^{h}i	to hate
	v-se	to know
	smær	to like
	vdo	to see
Transfer	*v-k^{h}o*	to give
	mə	to feed
	s-ŋi	to lend
	zbrɔ	to return a borrowed item
	ʐji	to teach
Relocation	*ŋk^{h}uə*	to put, place inside
	p^{h}əu	to take down
	v-tsa	to drop
	v-tɕ^{h}ə	to lift
	ʐua	to throw, discard
State modification	*z-gə*	to dress
	s-pærpær	to crush
	rɣi	to wash
	s^{h}ji	to wake someone up
	s-t^{h}oʑə	to mix
Violence	*ʑbæle*	to hit with a club
	ŋʈʂælvæ	to claw
	wʈʂælvæ	to claw
	z-bət^{h}a	to hit with a stick, whip
	z-bi	to hit with a stick, whip
Extermination	*v-s^{h}æ*	to kill
	vtəl	to vanquish, subdue
	ws^{h}i	to strangle

4.3.4.6. Ambitransitivity and alternation across verb classes

Verb class is mostly fixed in Geshiza, alternation between different classes being rare. Consequently, placing a verb in the model seldom presents any difficulties. Verb roots appearing in several classes, however, do exist in Geshiza, attested cases from the source materials being listed in Table 4.47 on the next page. Two main patterns emerge. First, some verb roots exhibit ambitransitivity. Second, there are also verb roots that appear in two intransitive classes. More extensive investigations into the matter will likely reveal more verbs of both kinds.

Table 4.47. Alternation across verb classes in Geshiza

Verb	Gloss	Verb	Gloss
ạdu (V1a)	to be harmful	*ạdu* (V1b)	to harm
blə (V1b)	to be missed	*blə* (V2b)	to miss
mkʰə (V1a)	to be smoky	*mkʰə* (V1b)	to suffer from smoke
nʑæ (V2b)	to be born	*nʑæ* (V4)	to give birth to
ŋo (V1a)	to be painful	*ŋo* (V2b)	to be sick
ɪŋæ (V1a)	to be slippery	*ɪŋæ* (V2b)	to slip
qrə (V1b)	to break (e.g. cups)	*v-qrə* (V3b)	to break (e.g. cups)
pʰæn (V1a)	to be beneficial	*pʰæn* (V1b)	to benefit
rtɕʰæ (V1a)	to be itchy	*rtɕʰæ* (V3a)	to bite

If the inverse prefix *v-* is phonologically applicable, no real ambiguity concerning transitivity arises, as in *qrə* 'to break (e.g. plates and cups as subjects), INTR', *v-qrə* 'to break (e.g. plates and cups as objects), TR'. As discussed in §4.3.3.2, the inverse carries a disambiguating function in these verbs. Formal ambitransitivity arises in the rest of the cases where the inverse is not applicable. For instance, the intransitive verb *nʑæ* (V2b) to be born is formally identical with the transitive verb *nʑæ* (V4) 'to give birth to', yet the conjugational properties of the two differ. The intransitive verb likely arises from the inversion forms of the transitive: *dæ-nʑoŋ-sʰi* (3 > 1) 'She gave birth to me' > 'I was born'; *dæ-nʑæn-sʰi* (3 > 2) 'She gave birth to you' > 'You were born'; *dæ-nʑæ-sʰi* (3 > 3) 'She gave birth to him/her' > '(S)he was born'.

Formal ambitransitivity leads to different case marking and argument indexation properties in intransitive and transitive scenarios. This is illustrated below with *rtɕʰæ* belonging both to classes 1b 'to feel itchy' (4.24) and 3a 'to bite' (4.25, following page). The intransitive use of the non-conjugable *rtɕʰæ* (V1b) in (4.24) has a genitive Experiencer (see §7.4.5). The use cannot be interpreted as transitive with an underlying unmarked subject, since that would require a dative object: *æŋ=ke rtɕʰæ-ræ* (1SG=DAT bite.NPST.3-SENS) '(It, e.g. a dog,) bites me'. The transitive use of *rtɕʰæ* (V3a) 'to bite' is illustrated in (4.25) where the subject is marked with the ergative case common to transitive clauses. Unlike in the intransitive scenario, in transitive use, *rtɕʰæ* conjugates: e.g. *rtɕʰəu* 'I bite', *rtɕʰoŋ* 'we bite' etc.

(4.24) *rtɕʰæ* (V1a) 'to be itchy', genitive Experiencer:

ŋɛ	*rtɕʰæ-ræ.*
1SG.GEN	be.itchy.NPST-SENS

My head feels itchy. (MEE)

(4.25) *rtɕʰæ* (V3a) ‘to be bite’, ergative subject:

næ-ndɔdɔn=mde.	***e***	***kəta=wo***	*rtɕʰæ-ræ=bɔ.*
IMP-be.careful.2=MOD	**DEM**	**dog=ERG**	bite.NPST.3=MOD

Be careful! That dog bites! (MEE)

In addition to ambitransitivity, class variation for verb roots also exists inside the two intransitive main classes. For the lack of a better term, this alternation consisting of a stative and non-stative verb pair is termed here ‘stativity alternation’. Like in ambitransitivity, stativity alternation entails different case marking and argument indexation in the two scenarios. To illustrate, the verb root *ŋo* belongs both to classes 1a ‘to be painful’ (4.26) and 2b ‘to be sick’ (4.27). The stative verb scenario has a genitive Experiencer, like in (4.24) discussed above.

(4.26) *ŋo* (V1a) ‘to be painful’, genitive Experiencer:

bɔ	*dæ-di-de.*	***ŋɛ***	*ŋo-ræ.*
thus	IMP-IRR.NEG-do.2SG	**1SG.GEN**	be.painful-SENS

Don’t do like that! It hurts me. (MEE)

(4.27) *ŋo* (V2b) ‘to be sick’, unmarked absolutive subject:

e	***lŋa=tʰə***	*æ-ntsʰæ*	*gæ-ŋo-sʰi.*
DEM	**child=TOP**	one-CLF.little.bit	IPFV-be.sick.3-IFR

That child got a bit sick. (MEE)

All attested alternation patterns are summarised in Table 4.48 below:

Table 4.48. Summary of the alternation patterns

Alternation type	Alternating classes	Verb 1 core argument	Verb 2 core argument	Examples from Table 4.47
stativity	1a ~ 1b	absolutive	genitive	*mkʰə*
	1a ~ 2b	absolutive	absolutive	*ŋnæ*
	1a ~ 2b	genitive	absolutive	*ŋo*
	1b ~ 2b	genitive	absolutive	*blə*
ambi-transitivity	1a ~ 3a	genitive	ergative	*rtɕʰæ*
	1b ~ 3b	absolutive	ergative	*qrə*
	2b ~ 4	absolutive	ergative	*nʑæ*

4.3.5. Inflectional morphological operations

This section provides an overview of inflectional morphological operations in Geshiza. All affixes and process formatives introduced below are discussed in detail in their functional contexts. Geshiza inflectional morphological operations use prefixation (§4.3.5.1); suffixation (§4.3.5.2); stem alternation (§4.3.5.3); suppletion (§4.3.5.4); and reduplication (§4.3.5.5).

4.3.5.1. Prefixation

As grammaticalised categories, aspect, mood, and negation are expressed through prefixation in Geshiza, the primary prefixes listed in Table 4.49. Interrogation in polar questions is also often expressed by prefixation, but the language has additionally two interrogative enclitics (see §10.1.2.). Prefixation operations introduced herein are inflectional morphological operations and contrast to derivation discussed in chapter 6 on word formation.

Table 4.49. Inflectional prefixes in Geshiza verbs

SECONDARY ASPECTS -6	ORIENTATION, ASPECT, MOOD -5	MOOD -4	NEGATION -3	VALENCY AND INVERSION -1
jæ- (continuative)	*rə-* (DIR, IMP, aspect)	*æ-* (interrogative)	*mi-* (negative)	*v-* (inverse)
gægæ- (cumulative)	*næ-* (DIR, IMP, aspect)	*-i-* (interrogative)	*mə-* (negative)	
	wə- (DIR, IMP, aspect)	*-ə-* (non-actual)	*mɛ-* (negative)	
	gæ- (DIR, IMP, aspect)	*-a-* (optative)	*-di-* (negative)	
	dæ- (DIR, IMP aspect)			
	zə- (aspect)			

Geshiza verbs have inflectional prefixes in the slots SECONDARY ASPECTS (-6) and ORIENTATION, ASPECT, MOOD (-5), MOOD (-4), and NEGATION (-3). The secondary aspect slot is used for the continuative (see §8.3.4) and cumulative (see §8.3.5) aspects. Most of the multifunctional prefixes in slot (-5) express the grammatical category of orientation (see §8.2.), a grammaticalised form of topography-based spatial deixis briefly illustrated in (4.28). In the Geshiza natural environment dominated by a river valley surrounded by mountains, direction of action, be it physical or metaphorical in an extended sense, is thus encoded in the verb. Most of these prefixes have further evolved aspectual (perfective, imperfective) and modal (imperative) meanings, discussed in detail in §8.3 (aspects) and §10.2 (imperatives).

(4.28) *rə-ɕʰoŋ* ‘I went (away from the river, up)’
næ-ɕʰoŋ ‘I went (towards the river, down)’
wə-ɕʰoŋ ‘I went (downstream)’
gæ-ɕʰoŋ ‘I went (upstream)’
dæ-ɕʰoŋ ‘I went (neutral direction)’

The MOOD slot (-4) includes a paradigm of prefixes for manifestations of reality status, namely realis and irrealis moods in Geshiza (see §8.5). The slot is followed by that of NEGATION (see chapter 11). Distinct from prefixation and excluded from the Table, productive REDUPLICATION (-2) is an inflectional device in Geshiza for indexing plurality (see §4.3.5.5 for a dedicated discussion). Finally, the slot VALENCY AND INVERSION (-1) contains the inverse marker *v-* (see §4.3.3.2).

4.3.5.2. Suffixation

In comparison to inflectional prefixation, inflectional suffixation in the Geshiza verbal system is restricted to ARGUMENT INDEXATION (+2), and EVIDENTIALITY AND PERSPECTIVE (+3), as shown in Table 4.50. Of these, argument indexation is extensively discussed in §4.3.3. The rich system of evidentiality and engagement serves as a topic for a dedicated chapter 9.

Table 4.50. Inflectional suffixes in Geshiza verbs

ARGUMENT INDEXATION (2)	EVIDENTIALITY AND ENGAGEMENT (3)
-u (1SG)	*-ræ* (sensory evidential)
-ŋ (1, exact meaning depending on context)*	*-sʰi* (inferential evidential)
-i (2SG)	*-jə* (reportative evidential)
-n (2, exact meaning depending on context)*	*-wo* (quotative evidential)
*for the details, see §4.3.3 for argument indexation and §7.2 for alignment	*-go* (engagement: non-shared information)
	-mə (epistemic suffix)

4.3.5.3. Stem alternation

The Gyalrong languages proper, Khroskyabs, and Horpa languages show stem alternation to mark TAM categories (Jacques et al. 2014: 91; Sun 2000a, 2000b). Geshiza lacks most alternation strategies present in these languages, but it exhibits aspiration alternation that creates two stems for the verbs, illustrated in Table 4.51 on the following page. Based on their primary function of indicating tense, these two stems are named non-past (glossing: NPST) and past (glossing: PST), respectively (see §8.4 for a description of the Geshiza binary tense system).

The non-past stem forms the underlying base form from which a possible past stem is derived through aspiration alternation. As a rule, when aspiration appears in one stem, it is

absent in the other. Since both stems can be aspirated, aspiration itself is thus not a marker of tense.

Table 4.51. Examples of stem alternation in Geshiza

NPST stem aspirated, PST stem unaspirated			NPST unaspirated, PST aspirated		
Non-past	Past	Gloss	Non-past	Past	Gloss
v-k^{h}o (V4)	*v-ko*	to give	*ɕua* (V4)	*ɕ^{h}ua*	to search
ŋʈʂ^{h}æ (V3b)	*ŋʈʂæ*	to milk	*kjo* (V2b)	*k^{h}jo*	to get angry
ŋk^{h}ær (V2b)	*ŋkær*	to vomit	*v-se* (V4)	*v-s^{h}e*	to know
p^{h}je (V2b)	*pje*	to escape	*v-tɕi* (V3b)	*v-tɕ^{h}i*	to ride
v-s^{h}æ (V4)	*v-sæ*	to kill	*spa* (V2b)	*sp^{h}a*	to be thirsty

When aspiration alternation is present, all eligible discontinuous consonants of a polysyllabic verb stem alternate: *ŋʂl^{h}æʈʂ^{h}æ* (non-past) ~ *ŋʈʂæʈʂæ* (past) 'to pull (mutually from different ends)'. Stem alternation, however, has phonological restraints and it can only occur with consonants that have both aspirated and unaspirated pairs: *p ~ p^h; t ~ t^h; ʈʂ ~ ʈʂ^h; k ~ k^h; q ~ q^h; ts ~ ts^h; tɕ ~ tɕ^h; s ~ s^h; ɕ ~ ɕ^h*. Consequently, alternation pairs, such as *ʑe ~ *ʑ^{h}e* 'to come' are ungrammatical, with the result that many Geshiza verbs have de facto only one single stem that distinguishes no tense categories (Table 4.52). No suprasegmental alternations, such as tonal distinctions, or substituting alternation processes have been observed to supplement for the lack of aspiration alternation in such instances. Finally, stem alternation is not restricted to native verbs, but also takes place in well-integrated Tibetan loanwords as well: *vɕæ ~ vɕ^{h}æ* 'to tell, speak' corresponding to Written Tibetan *bshad* 'ibid.'. Rarer Tibetan loans less known to Geshiza speakers, however, show the alternation less consistently.

Table 4.52. Aspiration alternation and verb stems

No aspiration alternation		Aspiration alternation	
stem 1 = stem 2	e.g. *vdo* 'to see'	stem 1 (non-past)	*st^{h}æ* 'to finish'
		stem 2 (past)	*stæ* 'to finish'

Stems with consonant clusters and aspiration alternation

Verb stems with consonant clusters (see §3.3.3) present special conditions for aspiration alternation. First, the C_p preinitials never alternate. If other members of the consonant clusters do not belong to the subset of consonants with a phonemic distinction of aspirated and non-aspirated counterparts, they remain unaffected, with the result that the non-past stem equals the past stem: *smu* 'to row'. If, however, the other consonants of the cluster consonant have aspirated and non-aspirated counterparts, aspiration alternation takes place there: *stɕær* (non-

past) ~ *stɕʰær* (past) ‘to get frightened, be afraid’. This goes against the analysis of Duo'erji (1997) where both the preinitial and initial are depicted as alternating: *stɕær* (non-past) ~ *sʰtɕʰær* (past), a process that would be articulatory more onerous. Second, the C_i initials always alternate, if the consonant pair in question has aspirated and non-aspirated counterparts. Thus: *v-tʰi* (non-past) ~ *v-ti* (past) ‘to drink’. Third, because of their phonetic properties, the medial C_m consonants (*r, l. j*) never alternate.

4.3.5.4. Suppletion

Suppletion refers to encodings of regular semantic relations by unpredictable formal patterns (Veselinova 2007: 127). Suppletion (glossing: SUPPL) is a marginal phenomenon in Geshiza related to stem alternation. The verb *ɕə* (V2b) ‘to go’ is irregular, since in addition to non-past and past stems, it also has a bound suppletive stem *-ve*. The suppletive stem is used in the non-past tense together with verbal prefixes used in an orientational meaning: *rə-* , *næ-*, *wə-*, *gæ-* (4.29; see §8.2). No other verbs with three stems were attested in the source materials.

(4.29) *e* ***wə-van=me.***
INTERJ **DIR-go.SUPPL.1=MOD**
Hey, let’s go! (RN: chronicle)

Typological-comparative remark

Jacques et al. (2014: 91) report that in *khang gsar* Stau, the verb *ɕə* ‘to go’ has a non-past suppletive form *-vi* used with orientational prefixes, other verbs in general not allowing orientational prefixes in non-past contexts. This form is clearly cognate with the Geshiza *-ve*. In a typological study, Veselinova (2007: 146-147) found out that far from being random, suppletion centres around limited number of concepts, general motion verbs ‘come’ and/or ‘go’ showing the highest amount of suppletion across the surveyed languages, followed by verbs with meanings ‘be/exist’.

4.3.5.5. Reduplication

Verbal reduplication manifests in two forms in Geshiza: lexical and morphological. Lexical reduplication here refers to the repetition of the verb resulting in multiple finite verbs (4.30). Semantically, lexical reduplication serves as an iconic device to express the notion of repetition of action ‘again and again’ or to emphasise its continuous nature. In (4.30), the lexical reduplication of the verb *ɕə* (V2b) ‘to go’ indicates that the speaker ascended again and again for a long time, reaching a high point on the mountain:

(4.30) [...] *rə-ɕʰoŋ. rə-ɕʰoŋ. rə-ɕʰoŋ. rə-ɕʰoŋ.* [...]
[...] PFV.DIR-go.PST.1 PFV.DIR-go.PST.1 PFV.DIR-go.PST.1 PFV.DIR-go.PST.1 [...]
We went up and up... (RN: personal history)

In addition to lexical reduplication, Geshiza also exhibits morphological reduplication (glossing: RED) in its verbal system. This operation has three functions: 1. repeated or continuous action; sociative action; 3; reciprocal action, and 4. plurality, illustrated in Table 4.53. While 1. and 2. are not productive and constitute a marginal use of reduplication in the Geshiza verbal system, reduplication can be used for marking plurality with high productivity.

Table 4.53. Types of morphological reduplication in Geshiza

Type	Productivity	Examples
repeated or continuous action	non-productive	*gæ-**lmæmæ**-s^{h}i* 'She/he/it cried.'
sociative action ('together')	non-productive	*dɔ-**məmə**-s^{h}i* 'They discussed.'
reciprocal action	higher productivity	*dæ-**v-ru~v-ru**-s^{h}i* 'They poured (e.g. tea) to each other.'
plurality of S/A	higher productivity	*dæ-**ɕ^{h}ə~ɕ^{h}ə**-s^{h}i* 'They went away.'
plurality of P	lower productivity	*gæ-**rjə~rjəu*** 'I asked (several people).'

Inherent reduplication expressing repeated, continuous, and sociative action

Reduplication appears in few verbs expressing repeated action that is prototypically durative and thus non-point like. Inherently reduplicated verbs, such as *lmæmæ* (V2b) 'to cry', have no underlying non-reduplicated forms, and the reduplication thus constitutes a non-productive historical process. These verbs cannot be reduplicated further.

Reduplication also constitutes a means for expressing sociative action 'doing X together' of either simultaneous or sequential type. Semantically, the forms often resemble reciprocals, as in *ạrara* (V2b) 'to fight' that expresses the notion 'X fights Y, and by default, Y fights X as well'. Verbs expressing reciprocity or sociative action through reduplication lack an underlying non-reduplicated form, making reduplication essentially a process of unproductive historical morphology. Table 4.54 below offers examples of non-productive morphological reduplication:

Table 4.54. Non-productive morphological reduplication in Geshiza

Type	Example	Gloss
Repeated or continuous action	*lmæmæ* (V2b)	to cry
	mbobo (V1b)	to cry, make sound (animals)
	ndɔdɔ (V2b)	to be careful
	q^{h}æq^{h}æ (V2b)	to laugh
Sociative action	*ạməmə* (V2b)	to discuss
	ạrara (V2b)	to fight
	ɣuəɣue (V2b)	to quarrel, argue (incl. physical violence)
	nt^{h}ant^{h}a (V2b)	to argue (verbal)

Reduplication as a productive morphological operation

In terms of its function in Geshiza, reduplication is used for indexing plural number S/A and P arguments. Additionally, reduplication also expresses reciprocal, mutual action in transitive scenarios. Unlike in Stau (Gates 2017; personal fieldwork), verbal triplication is not attested in the Geshiza source materials.

Formal analysis of productive morphological reduplication is best divided into two parts: the nature of syllable structure in the reduplicated part and its vocalisation. In the former, the number of syllables in the stem constitutes the primary factor. Monosyllabic verbs lacking the inverse prefix or final consonants undergo full reduplication: *rgə* (V2b) 'to sleep' > *rgə~rgə*. If present, the inverse prefix is reduplicated as well *v-ræ* (V3b) 'to write' > *v-rə~v-ræ*. Bisyllabic verbs follow two patterns. If the verb contains a historical suffix, such as *bjo-la* 'to fly' with the historical repetitive suffix *-IV ~ -rV* (see §6.2.3.10), only the leftmost root, not the whole stem, is reduplicated: *bjə~bjo-la*. In other cases, the rightmost syllable of a verb is reduplicated: *ŋɣædzo* (V2b) 'to tumble, trip' > *ŋɣæ-dzə~dzo*. Diachrony explains at last a part of such cases. For instance, *rŋæq^{h}ə* (V2b) 'to kneel' historically incorporates the noun *rŋæ* 'knee', with the result that only the verbal part proper is reduplicated: *rŋæ-q^{h}ə~q^{h}ə*.

Additionally, two specifying rules applying to both mono- and bisyllabic verb must be added. First, all final consonants are deleted in reduplication: *ɖʐæn* (V1b) 'to miss' > *ɖʐə~ɖʐæn*. This applies equally to *u* in the diphthong *əu* since it stems diachronically from the consonant *w* (see §3.2.2. *Origin of diphthongs*): *bəu* (V2b) 'to get off' > *bə~bəu*. Second, for currently unknown reasons, the medial *-j-* is occasionally retained and occasionally deleted in reduplication. The reduplication patterns from the viewpoint of syllable pattern are summarised in Table 4.55 on the following page:

The presence of the preinitial *n-* leads to a slightly differing pattern of reduplication in which the preinitial disappears from the verb root while being present in the reduplicated part. Duo'erji (1997: 76) explains this as a dissimilation phenomenon. Uncertainly, it can also alternatively be seen as an evidence of a historical loose connection between the preinitial functioning as a prefix and the root itself. In other words, the reduplicated element is positioned between the preinitial and the rest of the verb root: *ndzo* (V2b) 'to sit' reduplicates into *n-dzə~dzo,* while *ntsu* (V3b) 'to suck' reduplicates into *n-tsu~tsu*.

Moving from the syllabic pattern into vocalisation, the root vowel of the stem is reduced into a schwa (*ə*) in the reduplicated part. The verb *lji* (V4) 'to wait' is exceptional, since the reduplicated form becomes *lji~lji, *ljə~lji* deemed ungrammatical. Retention of *i* in reduplication, however, is not a general feature of verbs with a medial *-j-*. For instance, *zji* (V4) 'to teach' > *zjə-zji,* not **zji-zji.* Reduction of vowels is summarised in Table 4.56 on the following page:

Table 4.55. Reduplication patterns of Geshiza from the viewpoint of syllable patterns

Reduplication type	Base verb	Reduplication	General gloss
Full (monosyllabic	*dza* (V2b)	*dzə~dza*	to fall
verbs with no	*ɾgə* (V2b)	*ɾgə~ɾgə*	to sleep
inverse prefix *v-*)	*ɾji* (V2b)	*ɾjə~ɾji*	to wake up
Full (monosyllabic	*v-læ* (V4)	*v-lə~v-læ*	to let, light verb
verbs with the	*v-ræ* (V3b)	*v-ɾə~v-ɾæ*	to write
inverse prefix *v-*)	*v-tʰi* (V3b)	*v-tʰə~v-tʰi*	to drink
Partial: first	*bjo-la* (V2b)	*bjə~bjola*	to fly
syllable only	*ɾgo-lo* (V2b)	*ɾgə~ɾgolo*	to bow
	ɾqæ-le (V3b)	*ɾqə~ɾqæ-le*	to chew, gnaw
Partial: second	*ŋɣædzo* (V2b)	*ŋɣæ-dzə~dzo*	to stumble, trip
syllable only	*ntɕʰæra* (V2b)	*ntɕʰæ-ɾə~ɾa*	to have a fun time
	ɾŋæqʰə (V2b)	*ɾŋæ-qʰə~qʰə*	to kneel
Drop of final	*bəu* (V2b)	*bə~bəu*	to get off
consonant	*ɖʐæn* (V1b)	*ɖʐə~ɖʐæn*	to miss
	græl (V2b)	*grə~græl*	to be finished with
Drop and retention	*kjo* (V2b)	*kə~kjo* (dropped)	to get angry
of medial *-j-*	*v-kʰji* (V3b)	*v-kʰjə~v-kʰji* (retained)	to hang (to dry)
	pʰje (V2b)	*pʰjə~pʰje* (retained)	to escape

Table 4.56. Reduplication patterns of Geshiza from the viewpoint of vowel changes

Vowel change	Base verb	Reduplication	General gloss
i > ə	*dʐi* (V2b)	*dʐə~dʐi*	existential verb
i > i	*lji* (V4)	*lji~lji*	to wait
e > ə	*ʐe* (V2b)	*ʐə~ʐe*	to come
æ > ə	*sʰæ* (V2b)	*sʰə~sʰæ*	to die
a > ə	*lɣa* (V2b)	*lɣə~lɣa*	to go crazy
ə > ə	*jə* (V2b)	*jə~jə*	to say
ɔ > ə	*ntʰɔ* (V3b)	*ntʰə~ntʰɔ*	to weave
o > ə	*ŋo* (V2b)	*ŋə~ŋo*	to get sick
u > ə	*rdʐu* (V2b)	*smə-smu*	to run

Indexing plurality of S and A through reduplication

The argument indexation system in Geshiza does not distinguish number consistently. While the intransitive verbs lack the category of number altogether, transitive verbs do not distinguish between singular and plural in the third person. Verb reduplication has thus evolved as an

additional strategy in the language for specifying plurality, disambiguating number. It appears both in intransitive (S) and transitive (A) contexts. Since reduplicated verbs forms are plural, three distinct forms result inside the paradigm, presented here without verbal prefixes (Table 4.57):

Table 4.57. Argument indexation with reduplicated verbs

rgə (V2b) 'to sleep'		*ɕə* (V2b) 'to go'		*ŋgə* (V4) 'to eat'	
rgə~rgoŋ	we sleep	*ɕə~ɕoŋ*	we go	*ŋgə~ŋgoŋ*	we eat
rgə~grən	you sleep	*ɕə~ɕin*	you go	*ŋgə~ŋgən*	you eat
rgə~rgə	they sleep	*ɕə~ɕə*	they go	*ŋgə~ŋgə*	they eat

Even though Geshiza intransitive verbs do not differentiate number, number is nevertheless indexed in the first and second person class 3 and 4 transitive verbs. Reduplicating the verb for indicating plurality is however not compulsory even in the intransitive verbs, as can be seen from example (4.31). In the utterance, the first two intransitive verbs appear in the generic third person form with no number distinction, only the last verb being reduplicated.

(4.31) *neva* *gæ-wre* *ŋuə.* *næ-ʑe-s^{h}i* *tɕ^{h}u* *æ-rja*
relative ADJZ-be.many COP.3 PFV.DIR-come.3-IFR CONJ one-CLF.night

wnæ-rja *dæ-ndzon.* *məsni* *gædə=nɔ* ***dæ-ɕ^{h}ə~ɕ^{h}ə.***
two-CLF.night PFV-stay.3 today morning=TOP.C **PFV-RED~go.PST.3**
They have many relatives. They came and stayed one or two nights. They left this morning. (RN: chronicle)

Indexing plurality of P through reduplication

Reduplication also appears as a device for indexing the plurality of P in transitive verbs. Based on non-elicited instances, such cases appear to be less productive and lexically determined. The followed patter of reduplication deviates from general reduplication illustrated above. Instead of vowel reductions, an infinitive of a verb is followed by a copy of the verb root with transitive argument indexation (4.32). The infinitive lacking person indexation is conventionally glossed as the reduplication in this grammar.

(4.32) *'e* *t^{h}i* *bærma=ræ* *ɲu* ***gæ-rjæ~rjɛ'*** *joŋ.*
DEM DEM.GEN among=LNK 2SG.ERG **IMP-RED~ask.2SG** say.1
'Ask among them,' I am saying! (RC)

4.3.6. Infinitive

Geshiza argument indexation morphology and verb classes have been introduced above. This section is dedicated to the lack of inflectional morphology in the verbal system, i.e. indefinite verbs together with their morphosyntactic properties. Non-finiteness is traditionally defined as a mirror image of finity, non-finite as forms lacking marking for categories including tense, mood, aspect, person and number, and the capacity of predicate function (Koptjevskaja-Tamm 1999: 146). Geshiza has one non-finite verb form termed infinitive here. While used relatively sparingly in Trans-Himalayan studies, the term is chosen as a reflection of the typological-functional approach followed in this grammar. Infinitive (glossing: INF) in Geshiza is best defined morphosyntactically as a non-finite verb form with nominal properties that can function as a complement (see §12.4 for complementation), illustrated in (4.33) where the verb *v-ɕʰi* (V4) 'to fetch, take someone somewhere' appears as in infinitive with the predicate *ɕə* (V2b) 'to go':

(4.33) *ræ-læ-me* ***ɕʰi*** ***wə-ɕʰoŋ.***
picture-LV:release-NMLZ:A **fetch.INF** **PFV.DIR-go.PST.1**
I went (towards East) to fetch the painters. (RN: chronicle)

Morphological properties of the infinitives

Geshiza infinitives lack all inflectional morphology, except the TAM-cum-orientation prefixes (see §8.2) that may be present (4.34). The TAM-cum-orientation prefixes usually characterise finite verb-forms (4.35, following page). In contrast to finite verbs that can have up to two (exceptionally three; see §4.3.5.3) stems, infinitives always require the non-past stem. All morphological markers of argument indexation, such as the inverse *v-* and the argument indexation suffixes *-u, -ŋ, -j, -n,* are incompatible with infinitives. Evidential suffixes (see chapter 9) are also absent from the infinitive. The abovementioned conditions do not preclude the presence of derivational morphology in infinitives. Infinitive formation can thus be summarised as follows: Geshiza infinitives take the form of non-inverse non-past third person verb without any manifest argument indexation or evidential marking.

(4.34) Infinitive:

tɕʰu	*gædəɣi*	*<tɕʰi>*	*<tiæn>*	*<pæn>=ke*	***dæ-rji***
CONJ	early.morning	seven	o'clock	half=DAT	**PFV-wake.up.INF**

mɛ-tɕoŋ.
ASP.NEG-AUX.can.PST.1
I was unable to wake up at seven thirty in the morning. (RN: chronicle)

(4.35) Finite verb:

<tɕʰi>	*<tiæn>*	*<arʂə> =ke*	***dæ-rjan.***
seven	o'clock	twenty=DAT	**PFV-wake.up.1**

I woke up at seven twenty. (RN: chronicle)

Formal ambiguity

Without considering syntactic distribution, morphological criteria by themselves are insufficient for defining infinitives in Geshiza. This contrasts with some other languages that have dedicated morphological forms for infinitives, e.g. *-ma* infinitive (*lugema* 'to read') and *-da* infinitive (*lugeda* 'to read') in Estonian.

The biggest problem is that the inverse prefix *v-* is the only morphological argument indexation marker for the third person that has no dedicated argument indexation suffix to be removed in infinitive forming. Also, Geshiza intransitive verbs lack inverse marking, and only a part of the transitive verbs are compatible with it due to phonological reasons. Consequently, while *zju* 'sell.1SG' is unambiguously finite on purely morphological grounds, *zjə* can either be interpreted as 'sell.3' or 'sell.INF', since the verb is incompatible with inverse marking. Also, the verb class 1 as a whole exhibits no argument indexation. Finally, only a part of Geshiza verbs have more than one stem. These factors lead to ambiguities concerning a verb form's finiteness status without considering its syntactic placement. The issue of infinitive forming and formal ambiguity is illustrated in Table 4.58.

Table 4.58. Infinitive forming and formal ambiguity

Finite verb	*v-rə* (V3b)	*v-kʰuæ* (V3b)	*zjə* (V3b)	*ɕə* (V2b)	*ʐarə* (V1b)
Gloss	buy.3	cut.NPSt.3	sell.3	go.NPST.3	bark
Transitivity	transitive	transitive	transitive	intransitive	intransitive
Stems	one	two	one	two	one
Inverse marking	yes	yes	no	no	no
Non-conjugable	no	no	no	no	yes
Infinitive	*rə*	*kʰuæ*	*zjə*	*ɕə*	*ʐarə*
Formal ambiguity	no	no	no	yes	yes

Nominal properties of Geshiza infinitives

Unlike action nominals, infinitives frequently lack nominal morphosyntactic properties, such as case (Ylikoski 2003: 196). Geshiza diverges from this tendency. The infinitive has acquired some nominal properties. First, it may host the nominal plural enclitic *=ɲə* (§5.2.4; 4.36, following page). Second, it is compatible with the genitive case enclitic *=je,* serving as a possessive modifier (see §5.5.1), as illustrated in (4.37).

(4.36) *va-dzi* ***kʰuæ=ɲə*** *gɔ-rin=ræ.*
pig-food **give.INF=PL** IPFV-walk.2=LNK.
(Here in the countryside,) you go to give the pig food. (RC)

(4.37) […] *braŋgu* *we* *æ-lə* ***rə=je***
[…] TOPN house one-CLF.INDEF **buy.INF=GEN**

<pʰiəutsə> *dʑo~dʑo* *vɕe-ræ* *tɕʰu.*
money RED.ADJZ~lot need.NPST-SENS CONJ
A lot of money is needed for buying a house in Danba County Town, so... (RC)

4.3.7. Complex predicates

Geshiza has three major strategies for forming complex predicates: light verbs (§4.3.7.1); verb serialisation (§4.3.7.2); and special non-argument nominalisations occurring with fixed predicates (§4.3.7.3).

4.3.7.1. Light verbs

Light verbs (glossing: LV) form complex predicates involving other predicational elements (e.g. nouns) that jointly predicate a monoclausal structure (see Butt 2010). Geshiza has three major light verbs: *və*, *v-læ*, and *v-ra*, all of which are transitive. Light verbs are sometimes called compound verbs (Bickel and Nichols 2009: 319) and phrasal verbs (Denwood 1999: 109). Complex predicates in Geshiza, however, do not qualify for compoundhood discussed in §6.3, since the two constituents may be syntactically separated, e.g. by an intervening indefinite classifier (see example 4.40 on the following page).

Complex predicates involving light verbs are widely attested in Trans-Himalayan, examples given here from Written Tibetan (4.38) and Jiaomuzu Gyalrong (4.39). The semantically bleached verbal constituent in the complex predicate is sometimes called verbaliser, especially in linguistics of West and South Asian regions.

(4.38) Complex predicates in Written Tibetan:
gcin pa 'urine'; *gtong* 'light verb' > *gcin pa gtong* 'to urinate'
gompa 'step'; *rgyab* 'light verb' > *gom pa rgyag* 'to walk'
slob sbyong 'study(ing)'; *byed* 'light verb' > *slob sbyong byed* 'to study'

(4.39) Complex predicates in Jiaomuzu Gyalrong (Prins 2011: 237):
ɟenxwa 'phone'; *kaleʔt* 'to hit' > *ɟenxwa kaleʔt* 'to make a phone call'
popo 'kiss'; *kava* 'to do > *popo kava* 'to kiss'
tatpe 'faith'; *kataʔ* 'to put > *tatpe kataʔ* 'to believe'

The light verbs are grammaticalisations of verbs that still exist as formally identical full verbs in the language. In the case of *və*, the grammaticalisation has proceeded furthest and few instances of its appearance in the source materials can be interpreted as full verbs. Rather than standing in a clear contrast, full verb and light verb uses form a continuum. The light verbs have no deflections in their paradigms and display the usual range of verbal prefixes. Since the word class of verbs has become largely closed, the light verbs used together with nominal loanwords constitute a major means of enriching the lexicon of the language (see §14.3.2).

Light verb və

The light verb *və* (V3b ~ V4); glossing: LV:do) 'to do, make' has the widest use among Geshiza light verbs. Examples involving no Chinese loanwords are given in Table 4.59 on the following page. The verb *və* is semantically similar to the full verb *v-dæ* (V3b)'to do', but never appears without a complement, which can nevertheless be abbreviated if recoverable from the discourse context. The behaviour of the light verb is illustrated in (4.40, 4.41):

(4.40) *wne* *tʰu* *rjəu* ***gogo*** ***æ-lə*** ***van.***
two DEM.ERG wife **sharing** **one-CLF.INDEF** **LV:do.1PL**
Let us share a wife (RN: folktale)

(4.41) *rgəmbəu* ***skærva*** ***dæ-van.***
monastery **circumambulation** **PFV-LV:do.1PL**
We circumambulated the monastery. (RN: procedure)

Due to its highly general semantics, it is hard to determine which instances of *və* qualify for full verb use and which ones for light verb use. For instance, *dzi və* 'to cook', lit. 'to make food' in (4.42) appears rather concrete, whereas *rjəu və* 'to marry', lit. 'to take a wife' can only be analysed as an instance of light verb use. The optimal solution to the issue likely lies in seeing full and light use of *və* as a gradual continuum, rather than two binary oppositions.

(4.42) *ŋa* ***dzi*** ***gæ-vu.*** *zə-stʰəu=bɔ.*
1SG **food** **IPFV-LV:do.1PL** PROSP-finish.NPST.1SG=MOD
I am cooking. I am about to finish. (RC: chronicle)

By default, most Chinese loanwords co-occur with *və* as its complements, rather than with the other light verbs (see §14.3.2 for a more extensive survey on Chinese loanwords and their behaviour). In addition to nouns, non-marked adjectives appear as complements of the verb, giving yet another piece of evidence concerning their close relationship to nouns as a word class: *tʰæn* 'irritating' > *tʰæn və* 'to irritate', *ɕʰæro* 'clean' > *ɕʰæro və* 'to clean'.

Table 4.59. N + light verb *və*

Noun	Gloss	N V	Gloss
ʑalə	mountain song	*ʑalə və*	to sing mountain songs
ʑato	scripture recitation	*ʑato və*	to recite scripture
bæ-skæ	Geshiza language	*bæ-skæ və*	to speak Geshiza
bopa	kiss	*bopa və*	to kiss
ɕʰæro	clean	*ɕʰæro və*	to clean
ɕʰævtsu	flash of lightning	*ɕʰævtsu və*	to flash, lightning
dʑədə	book, letter	*dʑədə və*	to study
gogo	shared, of common use	*gogo və*	to share, use together
ɣæ	door	*ɣæ və*	to close the door
ɣæzli	door bolt	*ɣæzli və*	to bolt the door
kʰosær	oral artform (see §15.1)	*kʰosær və*	to perform *kʰosær*
læ	lie	*læ və*	to lie
læn	answer	*læn və*	to answer
leska	(physical) work	*leska və*	to work
lɣe	joke	*lɣe və*	to joke
lɔrda	hand sign	*lɔrda və*	to signal with hands
ma	nothing	*ma və*	to destroy, kill
mna	oath	*mna və*	to swear an oath
ndʑælkʰa	visit	*ndʑælkʰa və*	to visit
ɳɖʑəŋkʰa	feast, entertainment	*ɳɖʑəŋkʰa və*	to give a feast, entertain
ntɕʰæn	Tibetan drama	*ntɕʰæn və*	to perform Tibetan drama
pʰele	compensation	*pʰele və*	to compensate
rda	signal, gesture	*rda və*	to signal, gesture
rdʑæ-skæ	Chinese language	*rdʑæ-skæ və*	to speak Chinese
rgeva	*dge ba* (see §2.4.4)	*rgeva*	to perform the *dge ba* ritual
rjəu	wife	*rjəu və*	to take a wife, marry
sævqʰi	prank, practical joke	*sævqʰi və*	to do a prank, practical joke
skærva	pilgrimage, circumambulation	*skærva və*	to go for a pilgrimage, circumambulate
snə-skæ	voice with nasal quality	*snə-skæ və*	to have nasal quality in the voice (when sick)
stærmu	wedding	*stærmu və*	to get married
tʰæn	irritating	*tʰæn və*	to irritate
tsʰoŋ	business	*tsʰoŋ və*	to do business
wlæ	wind	*wlæ və*	to be windy
wlæmbæ	storm	*wlæmbæ və*	to have a storm

Nounoids and the light verb və

Complement position for the light verb *və* constitutes the only allowed locus for Geshiza nounoids (see §4.2.1). A selection of nounoids appearing with the light verb *və* are listed in Table 4.60 on the following page. Three types are attested:

1. Converted noun as the nounoid complement

The nounoid may also result conversion (see §6.2.4), in which case it has traceable semantic content. In this pattern, the semantic difference between the non-converted verb and converted nominal complement of the light verb appears minimal, as shown in example (4.43).

(4.43) *re* ***mdʑa*** ***gæ-və-sʰi.*** *re* ***dæ-mdʑa-sʰi.***
turninp **hoeing** **IPFV-LV:do.3-IFR** turnip **PFV-hoe.3-IFR**
She was hoeing the turnips. She was hoeing the turnips. (RN: chronicle)

2. Nounoid formed through reduplicative nominalisation as the complement

A nounoid can be a nominalisation through reduplication (see §6.2.3.1. *Reduplicative action nominalisation*). In this case, using it in the complement position for the light verb *və* emphasises the repetitive nature of action in which an event consists of a multitude of successive subevents of similar nature. As in (4.44), the speaker takes a dish, washes it with repetitive movements, moves into the next one, until all dishes have been washed:

(4.44) *tʰævkʰa* *wrə* *lo~lo* *mtsʰoŋ=ræ*
stove water RED.ADJZ~hot heat.NPST.1PL=LNK

skʰrəskʰræ ***d-ə-van.***
washing **PREF-NACT-LV:do.1PL**
We heat in hot water in the stove and wash (the dishes). (RN: procedure)

3. Remaining cases

The non-verbal element in complex predicates is often semantically opaque. To illustrate, since *rænle və* as a whole means 'to wallow (horses)', deducting the light verb gives *rænle* the semantic content of 'wallowing (of horses)', but no morphological connections with any other words in the contemporary language are attested. Semantic opaqueness can also be partial. In (4.45), the nounoid *tsuʑə* 'ploughing' is only partially semantically opaque, since *ʑə* appears in a full noun *ʑə* 'field':

(4.45) *ŋa* ***tsuʑə*** ***gæ-vu.***
1SG **ploughing** **IPFV-LV:do.1SG**
I am ploughing the field. (RN: folktale)

Table 4.60. Nounoid + light verb *və*

Type	N	Gloss	N V	Gloss
1.	*rŋa*	hunting	*rŋa və*	to hunt
	rkə	stealing	*rkə və*	to steal
	k^{h}rən	punishment	*k^{h}rən və*	to punish
	mdʑa	hoeing	*mdʑa və*	to hoe
	wdʑolo	grinding	*wdʑolo və*	to grind
2.	*k^{h}ji~k^{h}ja*	drying	*k^{h}ji~k^{h}ja və*	to dry
	mtsi~mtsa	sharpening	*mtsi~mtsa və*	to sharpen
	mts^{h}ə~mts^{h}æ	painting	*mts^{h}ə~mts^{h}æ və*	to paint
	mtɕ^{h}æ~mtɕ^{h}æ	offering	*mtɕ^{h}æ~mtɕ^{h}æ*	to give an offering
	nt^{h}ɔ~nt^{h}a	weaving	*nt^{h}ɔ~nt^{h}a*	to weave
	nts^{h}e~nts^{h}a	acting	*nts^{h}e~nts^{h}a*	to act
	rə~ræ və	shopping	*rə~ræ və*	to do shopping
	p^{h}rə~p^{h}ræ və	explaining	*p^{h}rə~p^{h}ræ və*	to explain
	rɣi~rɣa və	washing	*rɣi~rɣa və*	to wash
	rtsə~rtsi və	calculating	*rtsə~rtsi və*	to work out the accounts
	sk^{h}rə~sk^{h}ræ	dish washing	*sk^{h}rə~sk^{h}ræ və*	washing the dishes
	t^{h}ə~t^{h}æ	begging	*t^{h}ə~t^{h}æ və*	to beg (e.g. for food)
	zrə~zræ	sweeping	*zrə~zræ və*	to sweep
3.	*dæɣo*	helping	*dæɣo və*	to help
	kəlele	naked state	*kəlele və*	to be naked
	lbist^{h}i	bed wetting	*lbist^{h}i və*	to wet one's bed
	məulə	barefootedness	*məulə və*	to walk barefooted
	rænle	wallowing of horses	*rænle və*	to wallow (horses)
	rævji	sewing	*rævji və*	to sew
	rænle	wallowing of horses	*rænle və*	to wallow (horses)
	rnævɕæ	speaking ill behind one's back	*rnævɕæ və*	to speak ill behind one's back
	ruloŋ	being a *ro langs*	*ruloŋ və*	to(come) a *ro langs*
	skoŋ	mating of horses	*skoŋ və*	to mate (horses)
	s^{h}ævle	house building	*s^{h}ævle və*	to build a house (rare)
	tsuʑə	ploughing the field	*tsuʑə və*	to plough the field
	væjæ	bad and irresponsible behaviour when drunk	*væjæ və*	to behave badly and irresponsibly when drunk
	zærzær	beautifully clothed	*zærzær və*	to dress beautifully

Light verb v-læ

The meaning of *v-læ* (V4; glossing: LV:release) as a full verb is 'to let, free, release, unleash, hand out (e.g. cigarettes), to broadcast (e.g. on television)', illustrated in (4.46). This faithfully reflects the semantics of its proto form in Proto-Trans-Himalayan: *g-lwat 'to release, set free' (reconstruction of Matisoff 2003).

(4.46) *rjə* *ma-zə=tʰə* *lɔ* ***rə-v-læ-sʰi.***
wild.horse mother.CS-child=TOP again **PFV.DIR-INV-release.3-IFR**
(After treating them,) they released the wild horse mother and its foal back up (to the mountains). (RN: folktale)

As a light verb, the origins of *v-læ* are often clearly visible, as in *lbi v-læ* 'to urinate', lit. 'to release urine'. Several instances, however, are semantically more opaque with different degrees: e.g. *vɕæpa v-læ* 'to speak' (4.47) and *ʈʂʰetsə v-læ* 'to drive a car' (4.48). Prominent complex predicates formed with the light verb are collected into Table 4.61 on the following page.

(4.47) *dzi* *dæ-ŋgi* *ɲo* ***vɕæpa*** *lɔ*
food PFV-eat.2SG after **speaking** again

g-ə-loŋ=bɔ.
PREF-NACT-LV.release.2PL=MOD
Let's speak again after you have eaten. (UA: WeChat message)

(4.48) *<koko>* *<ʈʂʰetsə>* *æ-lə* *gæ-v-rə-sʰi.* *<koko>*
older.brother car one-CLF.INDEF PFV-INV-buy3-IFR older.brother

'<ʈʂʰetsə> ***gæ-lɛ'*** *jə.*
car **IMP-LV:release.3** say.3
My 'older brother' (here: cousin) bought a car. He told me to drive it. (RN: chronicle)

Table 4.61. N + light verb *v-læ*

Noun	Gloss	N V	Gloss
ɑ̨jə	faeces	*ɑ̨jə v-læ*	to defecate (rare)
ba	mahjong	*ba v-læ*	to play mahjong
ɕʰor	dice	*ɕʰor v-læ*	to play, throw dice
dəva	cigarette	*dəva v-læ*	to hand cigarettes
ɖʐ̩əpʰe	playing cards	*ɖʐ̩əpʰe v-læ*	to play cards
grə	boat	*grə v-læ*	to drive a boat
kʰædær	khata, *kha btags*	*kʰædær v-læ*	to give khatas
lbala	leaf	*lbala v-læ*	to grow leaves (plants)
lbi	urine	*lbi v-læ*	to urinate
lpʰæle	patch	*lpʰæle v-læ*	to put a patch (on clothes)
mətɔ	flower	*mətɔ v-læ*	to grow a flower (of a plant)
ŋkʰærlo	sheller	*ŋkʰærlo v-læ*	to use the sheller
rastu	egg	*rastu v-læ*	to lay an egg
rdʐ̩æn	lot	*rdʐ̩æn v-læ*	to cast lots
rjo	fence	*rjo v-læ*	to put up a fence
sæmnoŋ	thinking	*sæmnoŋ v-læ*	to think
skæ	speaking, words	*skæ v-læ*	to speak, utter words
skeɖʐ̩i	muffler, scarf	*skeɖʐ̩i v-læ*	to tie a muffler, scarf
smæn	medicine	*smæn v-læ*	to apply medicine (externally)
stɕewa	reincarnation	*stɕewa v-læ*	to reincarnate
tu	glue (archaic)	*tu v-læ*	to glue (archaic)
rtɕɔpa	faeces	*rtɕɔpa v-læ*	to defecate
rdʐ̩oŋloŋ	*rgya gling*	*rdʐ̩oŋloŋ v-læ*	to play Tibetan *rgya gling* clarinet
ɕʰəɣæ	water gate	*ɕʰəɣæ v-læ*	to open a water gate
tɕʰu	ball	*tɕʰu v-læ*	to play with a ball
ʈʂʰetsə	car	*ʈʂʰetsə v-læ*	to drive a car
vɕæpa	talking	*vɕæpa v-læ*	to talk, chat
wɕa	fart	*wɕa v-læ*	to flatulate
wrə	water	*wrə v-læ*	to let water into the field
xɛtɛ	shoelaces	*xɛtɛ v-læ*	to tie up shoelaces
zəva	*zəva* ritual	*zəva v-læ*	to perform the *zəva* ritual
zɣe	yawning	*zɣe v-læ*	to yawn
ʐ̩ə	type of oral artform (see §15.1)	*ʐ̩ə v-læ*	to perform *ʐ̩ə*

Light verb v-ra

As a full verb, *v-ra* (V3a; glossing: LV:hit) has the meaning 'to hit' (4.49). It is also used as the predicate of the semelfactive construction (see §8.3.8). As a light verb, the uses of *v-ra* verb form a continuum from concrete acts of hitting to abstract action, both extremes illustrated by the pair *ndzær v-ra* 'to nail' and *vkræɕʰə v-ra* 'to bless'. The common denominator for the use of *v-ra* as a full and light verb lies in perceived force exerted by the agent. Light verb use of *v-ra* is illustrated by examples (4.50, 4.51).

(4.49) *tsələ=ke* *æ-bi* ***gæ-v-ra=ke*** *tsələ* *lmæ*
cat=DAT one-CLF.hit:stick **IPFV-INV-hit.3=SEQ** cat 3SG

dæ-sæ-sʰə-mə-ræ.
PFV-die.PST.3-IFR-EP-SENS
He hit the cat once and it died. (RN: folktale)

(4.50) *rtso* *gædə* ***sŋar*** ***dæ-v-ra-sʰi.***
cold.season morning **frost** **PFV-INV-LV:hit.3-IFR**
There was frost on the mornings of the cold season (MEE: see §2.2.2 for the Geshiza seasons and climate).

(4.51) *ɲi* *rə-lxuan* *tɕʰa=ræ* *æŋ=ke* *<niænɕi>* *dæ-vi=bɔ.*
2SG DIR-appear.3 when=LNK 1SG=DAT contacting IMP-LV:do.2SG=MOD

<tiænxua> ***dæ-rɛ=bɔ.***
phone **IMP-LV:hit.2SG=MOD**
Contact me when you come. Give me a phone call! (RN: Weixin)

The wide use of *v-ra* in Geshiza may partially arise from language contact: the light verb *dǎ* 打 that has the meaning 'to hit' as a full verb is in wide use in Chinese with a function similar to that of *v-ra* in Geshiza. To illustrate, *tiænxua* being a Chinese loanword, the use of *v-ra* in *tiænxua v-ra* 'to hit the phone' < *dǎ diànhuà* 打电话, lit. 'to hit the phone' is clearly of Chinese influence (4.55). Several other instances, such as *lævtɕoŋ v-ra* 'to fire a gun' have Chinese counterparts: *dǎ qiāng* 打枪 'lit. to hit the gun'.

Table 4.62 on the following page lists the attested complements for the light verb *v-ra*. The light verbs *v-ra* and *v-læ* show marginal overlap in the case of *tɕʰu v-ra* and *tɕʰu v-læ* that are both used for expressing the notion 'to play with a ball' with little difference in meaning.

Table 4.62. N + light verb *v-ra*

Noun	Gloss	N V	Gloss
ąʑi	bow	*ąʑi v-ra*	to shoot with the bow
ba	mahjong	*ba v-ra*	to play mahjong
ɕʰældoŋ	binoculars	*ɕʰældoŋ v-ra*	to use binoculars
ɖʐəpʰe	playing cards	*ɖʐəpʰe v-ra*	to play cards
læftɕoŋ	gun	*læftɕoŋ v-ra*	to fire a gun, shoot with a gun
lmu	hailstone	*lmu v-ra*	to rain hailstones
mtɕʰərqʰo	knot	*mtɕʰərqʰo v-ra*	to tie a knot
ndzær	nail	*ndzær v-ra*	to nail
ntɕʰæɖʐɔ	torrential rain	*ntɕʰæɖɔ v-ra*	to rain heavily
ŋkʰuma	key	*ŋkʰuma v-ra*	to lock
pʰu-me	bonfire	*pʰu-me v-ra*	to light a bonfire, large fire
sŋar	frost	*sŋar v-ra*	to be(come) frosty
sqomba	slingshot	*sqomba v-ra*	to shoot with a slingshot
sqrə	boundary mark	*sqrə v-ra*	to set up a boundary mark
tiænxua	phone	*tiænxua v-ra*	to call
tʰɔ	lightning bolt	*tʰɔ v-ra*	to hit, lightning bolts
tɕʰu	ball	*tɕʰu v-ra*	to play with a ball
ʈʂəu	photo	*ʈʂəu v-ra*	to take a photo
va	pig	*va v-ra*	to remove the uterus of a sow as a means of birth control
vka	order	*vka v-ra*	to give an order
vkræɕʰə	blessing	*vkræɕʰə v-ra*	to bless

4.3.7.2. Verb serialisation

Verbs serialisation forms complex predicates in Geshiza. Serial verb construction describes a single event that refers to 'a sequence of verbs which act together as a single predicate, without any overt marker of coordination, subordination, or syntactic dependency of any other sort.' (Aikhenvald 2006:1).

As a complementation strategy, Geshiza employs verb serialisation in which both verbs must share the same subject. In the biverbal construction, the first verb typically expresses the manner of movement described by the second verb. For instance, in (4.52), the subjects went to *læŋa* by walking (and not e.g. by car). In a similar fashion, in (4.53), the child appears at the upper end of stairs.

(4.52) *læŋa* *tɕæ-wo* *bɔtʰə* *ŋa=jnə* ***dæ-baboŋ*** ***rə-ɕʰoŋ.***
TOPN road-SUPE like.that 1SG=PL **PFV-walk.1** **PFV.DIR-go.PST.1**
We walked the road (up) to *læŋa.* (RN: chronicle)

(4.53) *xə=ntsʰe=je* *lŋa=tʰə=ræ* *xaræ* *slə-ɣwə* ***dæ-rdʑu***
DEM=ASS.GEN=GEN child=TOP=LNK CONJ stair-head **PFV-run.3**

rə-lxua=ræ *xaræ* […]
PFV.DIR-appear.3=LNK CONJ […]
Their child run the stairs up and appeared... (RN: chronicle)

The first verb in verb serialisation must appear in a finite form agreeing in person indexation with the second verb (4.54).

(4.54) **læŋa* *tɕæ-wo* *bɔtʰə* *ŋa=jnə* ***dæ-baba*** ***rə-ɕʰoŋ.***
TOPN road-SUPE like.that 1SG=PL **PFV-walk.INF** **PFV.DIR-go.PST.1**
Intended meaning: We walked the road (up) to *læŋa.* (REJ: see 4.52)

Comparative note
As in Khroskyabs (Lai 2017: 608-610), verb serialisation in Geshiza constitutes a minor complementisation strategy with a closed set of participating member verbs. Verb serialisation most frequently concerns basic motion verbs (Aikhenvald 2006: 47).

4.3.7.3. Other complex predicates

Geshiza grammar includes five non-argument nominalisers with specific semantics: capacitative (opportunity) *-pa;* capacitative (physical) *-tʰæ;* limitative *-loŋ;* permissive *-rgui;* and preparative *-tɕʰi.* The nominalisations are nounoids lacking independent existence and commonly appear with fixed verbs only. I thus consider them a third strategy for forming complex predicates in Geshiza.

Capacitative -pa
Capacitative nominalisations formed with the suffix (glossing: NMLZ:CAP) are used with the verb *tje* (V2b) 'to come, become, be enough' to convey the meaning of '(not) to manage to do something' (4.55):

(4.55) *dzi* *ŋgə-**pa*** *mɛ-tʰjan.*
food eat-**NMLZ:CAP** ASP.NEG-become.PST.1SG
I did not have the time to eat. (RN: chronicle)

Capacitative -tʰæ

Capacitative nominalisations with *-tʰæ* (glossing: NMLZ:CAP) used together with either the affirmative existential verb *də* (see §7.6.1) or with its negative counterpart *ma* (see §7.6.2; §11.2.5) conveys the notion of inability due to physical restrictions, e.g. being sick (4.56):

(4.56) *ŋɛ* *ɕə-**tʰæ*** *ma.*
1SG.GEN go.**NMLZ:CAP** NEG.EXV
I cannot go (away since I am sick). (RN: folktale)

Limitative -loŋ

The limitative nominaliser *-loŋ* (glossing: NMLZ:limit) always used in negative contexts denotes the unlimited extend of an action. As in (4.57), it is often used metaphorically:

(4.57) *mtɕæ* *ɕə-**loŋ**=dʑe* *ma-ræ.*
give.gifts go-**NMLZ:limit**=TOP NEG.EXV-SENS
(When the winter comes and people start sending invitation letters to weddings), there is no limit to going to give gifts. (RC; see 2.4.2. concerning Geshiza weddings)

Permissive-rgui

Together with the existential verbs *də* and *ma*, the permissive nominaliser *-rgui* (glossing: NMLZ:permission) forms permissive clauses (4.58). These are discussed in detail the context of modality (see §8.6.2).

(4.58) *vɕæ-**rgui*** *ma-ræ* *tɕʰu.*
speak-**NMLZ:permission** NEG.EXV-SENS CONJ
Speaking (about the matter) is not allowed. (RN: folktale)

Preparative -tɕʰi

The preparative nominalisation formed with *-tɕʰi* (glossing: NMLZ:PREP) exclusively cooccurs with the light verb *və* where it indicates preparation for something (4.59):

(4.59) *gəɕʰo=ræ* *xaræ* *mtsʰær-pʰə-**tɕʰi***
evening=LNK CONJ have.fun.time-CAUS.NPST-**NMLZ:PREP**

g-ə-və.
PREF-NACT-LV:do.3
In the evening (of a wedding, the guests) get ready to enjoy themselves. (RN: personal history/ethnographic description)

4.3.8. Copulas and auxiliaries

In addition to light verbs discussed above, Geshiza has copulas and auxiliaries. The two copulas, namely *ŋuə* (affirmative; glossing: COP) and *mɲa ~ mja* (negative; glossing: NEG.COP), are discussed in detail in their functional context (see §7.3.4). Both copulas belong to the intransitive verb class 2b (see §4.3.4.3) with thus three distinct forms indexing person, but not number.

Schachter and Shopen (2007: 41) define auxiliaries as 'words that express the tense, aspect, mood, voice, or polarity of the verb with which they are associated'. Geshiza has thirteen identified auxiliaries (glossing: AUX) that mark 1. valency (the causative auxiliary *-pʰə*), 2. aspect (the experiential perfect auxiliary *zda*), 3. intensification (intensifying auxiliary *-tæn*) and mood (ten modal auxiliaries; two bound and eight freestanding). In terms of their word class, auxiliaries are verbs in Geshiza. The inventory of auxiliaries is listed in Table 4.63 below:

Table 4.63. List of Geshiza auxiliaries

Grouping	Auxiliary	Function
Bound	*-pʰə* (V4)	causative auxiliary
	-tɕʰi	modal auxiliary: can, be all right
	-vtɕʰæ	modal auxiliary: uncertainty
	-tæn	intensifying auxiliary
Free (independent)	*zda*	experiential perfect auxiliary
	mə-grə (1b)	modal auxiliary: to be unable
	mɲə (2b)	modal auxiliary: can, be able
	ŋi (V1a)	modal auxiliary: to be all right, acceptable
	mə-ske (1b)	modal auxiliary: should not
	sko (V1b)	modal auxiliary: to manage, can, be able
	snə (3b)	modal auxiliary: to dare
	tɕʰa (2b)	modal auxiliary: can, be able
	vɕe (1b)	modal auxiliary: want, need, must

An auxiliary follows the main verb in Geshiza. The auxiliaries are either bound or free-standing. While the latter are able to host verbal prefixes, the former are bound to the main verb that carries the prefixal morphology. Nevertheless, in both cases, the auxiliary hosts the evidentiality and engagement suffixes (see §9.2) and modal discourse enclitics (see §8.6.5), both of which have a range over a whole clause. Argument indexation occurs either in the auxiliary or the main verb. When an auxiliary bears the role of argument indexation, all the four major verb classes (1-4; see §4.3.4) are attested.

Many auxiliaries are discussed in dedicated functional chapters (see §8.3.6 for the experiential perfect and §8.6.4 for the modal auxiliaries). Consequently, the brief overview

below mainly focuses on the bound auxiliaries not discussed in detail in other functional contexts or on morphological properties of auxiliaries whose function is addressed elsewhere.

Causative auxiliary -pʰə

Geshiza has one productive causativiser, the auxiliary *-pʰə* (glossing: AUX.CAUS). Causativisation as the only productive valency changing operation of Geshiza is discussed in §7.5.1. The non-productive causative prefix *s/z-* (see §6.2.3.4) is subject to strict constraints. For instance, it cannot be used to derive a causative from s-initial verbs such as *stʰæ* (V3b) 'to end, finish' that would be formally distinct, resulting consequently in potentially ambiguous homophony. Furthermore, the emergence of illicit consonant clusters impedes the application of the prefix to all possible verb roots. These constraints created a context for the emergence of a new causative type in Geshiza.

The historical causative prefix *s/z-* became unproductive while a new productive auxiliary *-pʰə* grammaticalised and took over the function of expressing causativity in Geshiza. In comparison to the prefixal causative strategy inherited from Proto-Trans-Himalayan and present in all hitherto researched Horpa lects, the replacing causative constructions in these lects cannot be traced back to a single proto-form, indicating their more recent origin. For instance, Shangzhai uses an analytic construction consisting of the complementiser *-ldo* in tandem with the auxiliary *vzo* 'do, make' (Sun 2007: 225). This Geshiza causative auxiliary verb originates from a grammaticalised verb and represents a later innovation. Duo'erji (1997: 74). states that the original meaning of *-pʰə* is 'to permit, allow'. In this respect, Geshiza follows a general typological pattern in the emergence of causative constructions. Importantly, as discussed in §4.3.3.4, *-pʰə* is a cognate to Tangut *phji*[1] 'to send, cause to do'.

Both intransitive and transitive verbs from all verb classes can be made causative in Geshiza, illustrated in Table 4.64 below. Causative derivation applies equally to state and action verbs: *lɣa* (V2b) 'to be crazy' > *lɣa-pʰə* 'to make crazy', *v-rə* (V3b) 'to buy' > *rə-pʰə* 'to make buy'. As the last example illustrates, causativisation triggers the deletion of the inverse prefix *v-* (see §4.3.3.2). Since the auxiliary is employed for deriving causatives, the derivations can be unambiguously tracked back to non-causative roots.

Table 4.64. Examples of productive causativisation by verb class

Transitivity	Verb class	Verb	Gloss	Causative	Gloss
Intransitive	1a	*ŋi*	to be all right, good	*ŋi-pʰə*	to make all right, good
	1b	*mə*	to be ready (food)	*mə-pʰə*	to cook ready (food)
	2a	*ɴqʰi*	to be thin	*ɴqʰi-pʰə*	to make thin
	2b	*lɣa*	to be crazy	*lɣa-pʰə*	to drive crazy
Transitive	3a	*v-tʰæ*	to reach (a place)	*v-tʰæ-pʰə*	to lead into (a place)
	3b	*v-rə*	to buy	*rə-pʰə*	to make buy
	4	*lji*	to wait	*lji-pʰə*	to make wait

Intensifying auxiliary -tæn

The auxiliary *-tæn* (glossing: AUX.INT) intensifies the degree of the predicate (4.60) and consequently resembles an adverb in its function. The syntactic distribution of *-tæn* deviates from the general placement of adverbs as pre-head modifiers of verbs (see §4.9), since it follows the constituent it intensifies. It can host the evidential suffixes, as illustrated in (6.61). Since only verbs may host the evidential suffixes in Geshiza, *-tæn* must be an auxiliary with an intensifying function. It requires a main verb that is semantically gradable, many but not all of which are stative verbs: *mdʑɔ* (V1b) 'to be or go fast' > *mdʑɔ-tæn* 'to be or go very fast' (4.61).

(4.60) *ŋɛ* *ɲi* *ɖʐæn-**tæn.***
1SG.GEN 2SG miss-**AUX.INT**
I miss you dearly. (RN: folktale)

(4.61) *<ʂətɕæn>* *mdʑɔ-**tæn**-ræ=bɔ.*
time be.fast-**AUX.INT**-SENS=MOD
Time goes so fast. (RC)

4.3.9. Summary of Geshiza verbs

This segment introduced Geshiza verbs with a focus on their morphological properties. From a morphological viewpoint, verbs constitute the most complex aspect of the language. Geshiza verbs are divided into four major classes based on their argument indexation properties. Verbs generally show highly regular conjugation. Inflectional morphological operations for verbs use affixation, stem alternation suppletion, and reduplication to express person, number, tense-aspect-mood, reality status, orientation, negation, evidentiality, and engagement. In addition to finite forms, Geshiza verbal repertoire also contains an infinitive frequently used in a complement role in the language. The language has three major light verbs that form complex predicates with nouns and nounoids. Finally, Geshiza also has two copulas and auxiliary verbs.

4.4. Adjectives

Adjectives exist in Geshiza grammar as a separate word class. After a brief introduction (§4.4.1) to the word class where it is delineated against nouns and verbs, three adjective types of the language are discussed: prefixed (§4.4.2); reduplicated (§4.4.3); and non-marked[42] (§4.4.4).

4.4.1. Introduction

Typological literature has been sceptical about the universality of adjectives (see e.g. Velupillai 2012: 127), but some scholars have presented claims for the universality of a distinct class of adjectives in the world's languages recognisable based on distinct grammatical criteria (see Dixon 2004: 1-49 for the universalist argument).

In Geshiza, adjectives must be established as a separate closed word class. At a higher level, they are included in the group of macro-nominals, which illustrates their proximity with nouns. It should be noted that in this grammar, adjectives as a word class do not include stative verbs distributed across verb classes 1a (see §4.3.4.2) and 2a (see §4.3.4.3) that are semantically close to adjectives, yet functionally part of the verbal system. In other words, property concepts in Geshiza are coded into both adjectives and verbs, illustrated in Figure 4.4 below:

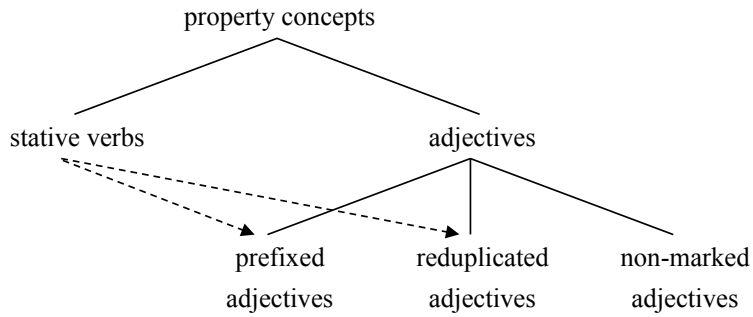


Figure 4.4. Coding of property concepts in Geshiza

More than 120 adjectives are attested in the source materials from three subclasses: prefixed, reduplicated, and non-marked adjectives (4.52). They are discussed in this section in the order of subclass size: prefixed adjectives (61 members); reduplicated adjectives (46 members); and non-marked adjectives (17 members). Of these, both prefixed and reduplicated adjectives can be unequivocally traced down into stative verbs that have become adjectivised either through prefixation or reduplication. This derivational relationship is indicated by dashed arrow line in Figure 4.4. In sum, at least to a large part, adjectives constitute a secondary, derived

[42] Since markedness (marked vs. unmarked) is used in linguistic analysis, the polysemous term unmarked is avoided here, non-marked being adopted instead. Geshiza non-marked adjectives lack a formal sign of adjectivehood, yet in terms of their share, they constitute the smallest subgroup of adjectives and are thus divergent, i.e. marked.

word class in Geshiza. Nevertheless, not every intransitive verb is compatible with adjective derivation. Only verbs from the classes 1a and 2a containing the most stative-like verbs serve as sources for adjective derivation.

(4.62) reduplicated (61 adjectives): *dəu~dəu* 'small'; *lji~lji* 'short'; *ro~ro* 'narrow' etc.
prefixed (46 adjectives): *gæ-bji* 'tall'; *gæ-mdze* 'beautiful'; *gæ-tɕʰæ* 'big' etc.
non-marked (17 adjectives): *ɪɲoŋba* 'old'; *ɕʰæro* 'clean'; *stɕæpo* 'happy' etc.

Delineating adjectives from stative verbs

Apart from formal properties in reduplicated and prefixed adjectives, the following criteria apply for distinguishing adjectives from stative verbs. First, unlike a part of stative verbs, adjectives lack argument indexation and cannot host the multifunctional verbal prefixes (see §8.2), behaving like nouns in this respect. Second, unlike stative verbs, and like nouns, adjectives require a copula in the predicate function. Neither can adjectives carry information concerning grammatical categories, such as person, tense, aspect, and evidentiality. This information is consequently encoded in the copulas, just like in all other verbs. Illustrating the aforementioned points, (4.63) is grammatical, since the predicate adjective *gæ-ʑo* 'tasty' co-occurs with the copula *ŋuə* carrying the evidential information. In contrast, (4.64) results ungrammatical due to the lack of a copula and the adjective incorrectly carrying the evidential information. This all contrasts with a related stative verb *ʑo* (V1a) 'to be tasty' that by itself is sufficient for predication and carries the evidential information (4.65). Finally, the copulas can be replaced with the verb *ʈje* (V2b) 'to become', in non-stative scenarios where the verb behaves copula-like (4.66).

(4.63) Adjective as a copular complement:
wo-ntʰu *gæ-ʑo* *ŋuə-ræ=bɔ.*
bear-meat ADJZ-tasty COP.3=MOD
Bear meat is tasty! (MEE)

(4.64) Incorrect use of a predicate adjective:
* *wo-ntʰu* *gæ-ʑo-ræ=bɔ.*
bear-meat ADJZ-tasty-SENS=MOD
Intended meaning: Bear meat is tasty! (REJ; see 4.63, 4.65)

(4.65) Stative verb functioning as a predicate:
wo-ntʰu *ʑo-ræ=bɔ.*
bear-meat be.tasty-SENS=MOD
Bear meat is tasty! (MEE)

(4.66) Use of an adjective in a non-stative scenario:

sme=ɲu	*lŋa*	*gæ-ntɕo*	*tɕʰa=ræ*	*qʰælo*	*dæ-ŋgə*	*tɕʰa=ræ*
women=PL.ERG	child	IPFV-have.PST	when=LNK	walnut	PFV-eat.3	COND=LNK

ŋi	*jə-mə.*	*lŋa*	***gæ-doŋ***	***tje.***
be.all.right	say.3-EP	child	**ADJZ-clever**	**become.NPST.3**

When women are pregnant, it is said to be good if they eat walnuts. The child will become clever. (RN: saying)

Unlike both verbs and nouns, adjectives have superlative forms indicated by the superlative prefix *zə-* (glossing: SUPL). For the derived adjectives, the superlative prefix takes the slot of the adjectiviser: ***gæ-tɕʰæ*** 'big' > ***zə-tɕʰæ*** 'biggest', ***lji~lji*** 'short'> ***zə-lji*** 'shortest'. In contrast, the superlative prefix adjoins a non-marked adjective directly: *ɾŋomba* 'old' > ***zə-***ɾŋomba 'oldest'. The suffix is likely a cognate to Wobzi Khroskyabs *sə̂-* (Lai 2017:304). Geshiza adjectives also participate in the analytic comparative construction (see §7.7.3), but since stative verbs also do so, this cannot be used as a delineating criterion. Only adjectives modify nouns directly, conventionally in the post-head position and exceptionally as pre-head modifiers. To illustrate, in (4.67). the prefixed adjective *gæ-bji* 'tall' modifies the noun *qa* 'mountain' directly and the other two adjective types behave structurally identically, but in (4.68), the verb *ʑæ~ ʑe* (V2b) 'to come' must be first nominalised to allow nominal modification:

(4.67) Direct modification by a prefixed adjective:

e	*qa*	*gæ-bji=tʰə*
DEM	mountain	ADJZ-tall=TOP

that tall mountain (MEE)

Direct modification by a reduplicated adjective:

e	*wdʑo*	*wʑə~wʑə=tʰə*
DEM	flour	RED.ADJZ~fine=TOP

That fine flour (MEE)

Direct modification by a non-marked adjective:

e	*we*	*særpa=tʰə*
DEM	house	new=TOP

that new house (MEE)

(4.68) Nominalisation required for modification:

e	*sme*	*dæ-ʑe-s^{h}i=t^{h}ə*
DEM	woman	PFV-come.3-NMLZ:S=TOP

that woman who came (MEE)

Arguments against participlehood

Prefixed and reduplicated adjectives resemble participles, traditionally defined as 'words that behave like adjectives with respect to morphology and external syntax, but are regularly derived from verbs' (Haspelmath 1994: 152). A participial interpretation in which both prefixed and reduplicated adjectives are participles formed through an inflectional operation is not adopted in this grammar. As Shagal (2017: 27) demonstrates in a typological study of participles are general in the sense that they can be formed from almost all verbs of a given language. In contrast, prefixed and reduplicated adjectives can be formed only from stative verbs in Geshiza.

4.4.1. Prefixed adjectives

Geshiza prefixed adjectives contain the prefix *gæ-* (glossing ADJZ; see §6.2.3.2 for the derivative process). 61 prefixed adjectives collected from the source materials express gustative and physical property; dimension; human propensity; quantity; subjective evaluation; value, and sensation, presented in Table 4.65 on the following page. This semantic range with eight fields is widest of all three adjective types. As discussed above, Geshiza prefixed adjectives derive from verbs, the source of derivation being indicated in the table.

Historical-comparative note

Marking of adjective or stative-verb-like word classes with a velar prefix is widely attested in Trans-Himalayan. A nominalising prefix *gV- whose function includes adjectival marking has been proposed for Proto-Trans-Himalayan (Konnerth 2016). At present, consensus is lacking whether the Horpa language adjectival prefix can be traced back to the proto-language. Alternatively, it may originate as an intensifying prefix with a different historical source (Jacques, personal communication, March 10 2018). While the adjectiviser *gV-* , the Stau cognate of Geshiza *gæ-* has an intensifying function in limited contexts, such intensifying function is absent in Geshiza. (see also Honkasalo, accepted). In all, more comparative data and research is needed to settle the issue with full certainty.

Table 4.65. Prefixed adjectives in Geshiza

Type	*Example*	*Gloss*	*Source*	*Gloss*
Gustative	*gæ-ɲəu*	spicy	*ɲəu*	spicy
property	*gæ-ŋær*	strong (alcohol)	*ŋær*	to be strong (alcohol)
	gæ-rzəu	spicy (red pepper)	*rzəu*	to be spicy (red pepper)
	gæ-sŋa	bitter, salty	*sŋa*	to be bitter or salty
	gæ-ʑo	delicious	*ʑo*	to be delicious, tasty
Physical	*gɔ-arəu*	shady	*a̠rəu*	to be shady
property	*gæ-dɔ*	clear	*dɔ*	to be clear
	gæ-ldə	heavy	*ldə*	to be heavy
	gæ-mkʰə	smoky	*mkʰə*	to be smoky
	gɔ-ɲo	muddy	*a̠ɲo*	to be muddy
	gæ-rɲæ	slippery	*rɲæ*	to be slippery
	gæ-ŋgə	stable (e.g. ladder)	*ŋgə*	to be stable (e.g. ladder)
	gæ-rtɕʰæ	itchy	*rtɕʰæ*	to be itchy
	gæ-sro	exposed to the Sun	*sro*	to be exposed to the Sun
	gæ-tɕɔ	pleasant	*tɕɔ*	to be pleasant
	gæ-wlan	stable	*wlan*	to be stable
	gæ-wji	light	*wji*	to be light
	gæ-wtsæ	hot (weather)	*wtsæ*	to be hot (weather)
	gæ-ʑɔ	rapidly flowing (of water)	*ʑɔ*	to be rapidly flowing (of water)
Dimension	*gæ-bji*	tall, high	*bji*	to be tall, high
	gæ-dʑi	long	*dʑi*	to be long
	gæ-tɕʰæ	big	*tɕʰæ*	to be big
	gæ-luə	thick (cylindrically)	*luə*	to be thick (cylindrically)
	gæ-mtʰo[43]	tall, high	*mtʰo*	to be tall, high
	gæ-nəu	deep	*nəu*	to be deep
	gæ-wʑa	thick (e.g. clothes)	*wʑa*	to be thick (e.g. clothes)
	gæ-ʑə	wide	*ʑə*	to be wide
Human	*gæ-mdze*	beautiful, handsome	*mdze*	to be beautiful, handsome
propensity	*gæ-doŋ*	clever, intelligent	*doŋ*	to be clever, intelligent
	gæ-dʑ̣ɔ	capable, competent	*dʑ̣ɔ*	to be capable, competent
	gæ-kʰo	healthy, in a good	*kʰo ~*	to be healthy, in a good
	gæ-kʰue	shape (a person)	*kʰue*	shape (a person)
	gæ-mærəu	low class, vulgar	*mærəu*	to be low class, vulgat

[43] Unlike *gæ-bji* that is limited to the domain of dimension, *gæ-mtʰo* also metaphorically expresses human propensity: a person of high stature.

	gæ-mtɕʰær	good looking	*mtɕʰær*	to be good looking
	gæ-nzən	'tight-lipped'	*nzən*	to be 'tight-lipped'
	gæ-ndʑi	weird	*ndʑi*	to be weird
	gæ-ndʑu	extraordinary	*ndʑu*	to be extraordinary
	gæ-qʰi	ferocious, good at	*qʰi*	to be ferocious, good at
	gæ-rdzu	handsome (men)	*rdzu*	to be handsome (men)
	gæ-vɣi	arrogant, fearless of others, and thinking high of him/herself	*vɣi*	to be arrogant, fearless of others, and thinking high of him/herself
	gæ-stɕe	happy	*stɕe*	to be happy
	gæ-tsʰuə	fat	*tsʰuə*	to be fat
	gæ-vtsʰe	rich, wealthy	*vtsʰe*	to be rich, wealthy
	gæ-dzu	pitiable	*zdu*	to pity
Quantity	*gæ-rkən*	scarce	*rkən*	to be scarce
	gæ-tsʰa	many (of wild animals, ogres)	*tsʰa*	to be many (of wild animals, ogres)
	gæ-wre	many	*wre*	to be many
Subjective evaluation	*gæ-dær*	well-developed and well-equipped (of monasteries)	*dær*	to be well-developed and well-equipped (of monasteries)
	gæ-dʐæ	well-developed and well-equipped (of monasteries)	*dʐæ*	to be well-developed and well-equipped (of monasteries)
	gɔ-du	harmful	*a̠du*	to be harmful
	gæ-pʰæn	beneficial	*pʰæn*	to be beneficial
	gæ-rka	hard, tiring	*rka*	to be hard, tiring
	gɔ-tsoŋ	spiritually pure	*a̠tsoŋ*	to be clean
	gæ-tɕædʑi	far	*tɕædʑi*	to be far
	?*gæ-tɕæne*	close	*tɕæne*	to be close[44]
	gæ-tɕɔ	pleasant	*tɕɔ*	to be pleasant
	gæ-ʑæʑæ	easy	*ʑæʑæ*	to be easy
Value	*gɔ-jær*	good	*a̠jær*	to be good
	gæ-kʰji	cheap	*kʰji*	to be cheap
	gæ-ŋi	good, okay	*ŋi*	to be good, okay
	gæ-vde	cheap	*vde*	to be cheap
Sensation	*gæ-ŋo*	painful	*ŋo*	to be painful

[44] The verb *tɕæne* (an incorporation, see §6.3.7) is rare in Eastern Geshiza where the adjective derivation is marginally acceptable, yet not commonly used. It is thus not counted in the overview of the adjective section.

4.4.2. Reduplicated adjectives

Geshiza reduplicated adjectives are derived from stative verbs through reduplication (glossing: RED.ADJZ; see §6.2.3.2 concerning the details of the derivative process). With 46 attested members, they express primarily colour; gustative and physical property; dimension; and quantity, illustrated in Table 4.66 below. In addition, the subcategory includes the value adjective *qʰi~qʰɪ* 'bad' and the adjective of subjective evaluation *mɲæn~mɲæn* 'equal, even with someone'.

While the semantic fields in prefixed and reduplicated adjectives show great overlap, no colour terms are included in prefixed adjectives. Inside a given semantic category, prefixed and reduplicated adjectives have only limited overlap, instead complementing each other. For instance, in the semantic antonymic pair TALL >< SHORT the former property concept is coded by the prefixed adjective *gæ-bji* 'tall', while the latter is expressed by the reduplicated adjective *lji~lji* 'short'. However, even though most instances follow the maxim that a verb allows one kind of derivation only, the stative verb *wji* has both a reduplicated and prefixed adjectival derivation: *wji~wji* 'light', *gæ-wji* 'light'. Their roles nevertheless differ: in contrast to the physical property of lightness expressed with *wji~wji*, *gæ-wji* is used more metaphorically, e.g. in *ʑa gæ-wji* 'generous', lit. 'light hand'.

All reduplicated adjectives derive from stative verbs. The reduplication consists of regular full reduplication in the pattern of Σ~Σ where Σ represents the stem of a stative verb, except in the irregular case of *vdəu* (V1a) 'to be small' that drops the preinitial consonant *v* in adjectivisation: *dəu~dəu* 'small'. Similarly, *ltʰə~tʰə* 'straight' is slightly irregular in its pattern, since the expected form *ltʰə~ltʰə* is considered ungrammatical.

Table 4.66. Reduplicated adjectives in Geshiza

Semantic Field	Example	Gloss	Source	Gloss
Colour	*ɲa~ɲa*	black	*ɲa*	to be black
	pʰru~pʰru	white	*pʰru*	to be white
	pʰə~pʰə	grey	*pʰə*	to be grey
	ɪŋə~ɪŋə	light green	*ɪŋə*	to be light green
	rŋə~rŋə	green, light blue	*rŋə*	to be green, light blue
	ɲji~ɲji	red	*ɲji*	to be red
Gustative	*tɕʰə~tɕʰə*	sweet	*tɕʰə*	to be sweet
property	*wtɕʰər~wtɕʰər*	sour	*wtɕʰər*	to be sour
Physical	*due~due*	clear (liquids)	*due*	to be clear (liquids)
property	*lo~lo*	hot (to the touch)	*lo*	to be hot (to the touch)
	rkʰo~rkʰo	cold	*rkʰo*	to be cold
	a̠næ~a̠næ	dark	*a̠næ*	to be dark
	nsʰo~nsʰo	bright	*nsʰo*	to be bright

	rgi~rgi	hard	*rgi*	to be hard
	mbla~mbla	smooth (and glaring to the eyes)	*mbla*	to be smooth (and glaring to the eyes)
	nvə~nvə	soft	*nvə*	to be soft
	wts^{h}o~wts^{h}o	weak (of a person)	*wts^{h}o*	to be weak (of a person)
	ạsə~ạsə	tight (e.g. lid)	*ạsər*	to be tight (e.g. lid)
	wji~wji	light	*wji*	to be light
	lŋo~lŋo	empty	*lŋo*	to be empty
	ɴquə~ɴquə	loose (e.g. belt)	*ɴquə*	to be loose (e.g. belt)
	sqra~sqra	less fine, grit-like	*sqra*	to be less fine, grit-like
	stəu~stəu	fine (e.g. flour)	*stəu*	to be fine (e.g. flour)
	vkra~vkra	patterned (of animals)	*vkra*	to be patterned (of animals)
	ws^{h}ə-ws^{h}ə	alive (of animals)	*ws^{h}ə*	to be alive (of animals)
	zva~zva	coarse (e.g. beard)	*vza*	to be coarse (e.g. beard)
Dimension	*lji~lji*	short	*lji*	to be short
	dəu~dəu	small	*vdəu*	to be small
	lt^{h}ə~t^{h}ə	straight	*lt^{h}ə*	to be straight
	tɕ^{h}e~tɕ^{h}e	narrow	*tɕ^{h}e*	to be narrow
	ro~ro	narrow	*ro*	to be narrow
	rɣa~rɣa	steep	*rɣa*	to be steep
	wde~wde	flat	*wde*	to be flat
	mtso~mtso	sharp	*mtso*	to be sharp
	bær~bær	low	*bær*	to be low
	pær~pær	flat	*pær*	to be flat
	bə~bə	thin	*bə*	to be thin
	ts^{h}o~ts^{h}o	thin (stick-like)	*ts^{h}o*	to be thin
	ɴq^{h}i~ɴq^{h}i	thin (people)	*ɴq^{h}i*	to be thin
	rɣo~rɣo	bent, curved	*rɣo*	to bend INTR
	qæl~qæl	concave	*qæl*	to be concave
Quantity	*dʑo~dʑo*	many, lot	*dʑo*	to be many, lot
	rdʑe~rdʑe	abundant, aplenty	*rdʑe*	to be abundant
	wzə~wzə	few, little	*wzə*	to be few, little
Subj.evaluation	*mɲæn~mɲæn*	equal, even	*mɲæn*	to be equal, even
Value	*q^{h}i~q^{h}i*	bad	*q^{h}i*	to be bad

Historical-comparative note

In a brief survey of thirteen Trans-Himalayan languages, Shirai (2014) shows that reduplication of adjectives (i.e. stative verbs in terms in this grammar) has a nominalising or deverbalising function. She tentatively suggests that Proto-Tangut-Qiang exhibited productive reduplication with a deverbalising function now lost in some languages. Seen against this backdrop, reduplicated adjectives of Geshiza are a remnant of an old Trans-Himalayan derivational device.

4.4.3. Non-marked adjectives

Non-marked adjectives behave functionally identically to both reduplicated and prefixed adjectives. They require a copula, form a superlative morphologically with the superlative prefix *zə-* and the comparative analytically with the adverb *skɛ* 'more'. Yet, unlike the two subgroups, they lack an explicit morphological marking of adjectivehood in the form of prefixation or reduplication. Of the three adjective subclasses, non-marked adjectives is the smallest. It could also be classified as a subclass of nouns for reasons discussed below. Prototypical core nouns, however, are incompatible with comparative and superlative formation: *we* 'house' > **skɛ we* '*houser', **zə-we* '*housest'. Table 4.67. lists identified examples of non-marked adjectives:

Table 4.67. Non-marked adjectives in Geshiza

Adjective	Gloss	Remarks
ạləmba	guileless, naïve	TL: *blun pa* 'fool, stupid'
ạsærpa	new	TL: *gsar pa* 'new'
ạtsɔma	clean	TL: *gtsang ma* 'clean'
ạʑəmba	young	TL: *gzhon pa* 'young'
jærəubə	generous	TL: *ya rabs po* 'generous'
ŋæmba	bad	TL *ngan pa* 'mean, bad'
ɹŋoŋba	old (things only)	TL: *rnying pa* 'old'
rtsæwa	essential	TL: *rtsa ba* 'root, basic, fundamental'
tæmbo	honest	possibly TL: *dgrag bo* 'honest
xsærpo	yellow	possibly TL: *ser po* 'yellow'
stɕæpo	happy	TL: *skyid po* 'happy'
zdupa	pitiable	TL: sorrow, misery
ɕ^{h}æro	clean	origin unclear
dop^{h}a	close, neighbouring	origin unclear
k^{h}rævto	cunning	origin unclear
qloŋqloŋ	totally empty	origin unclear
t^{h}ævæle	stupid	origin unclear

In addition to the prototypical cases, some Geshiza macro-nominals fall between core nouns and non-marked adjectives, e.g. shapes of objects. For instance, *kætæle* 'round' with both comparative and superlative formation is relatively adjective-like, while such formations for *ndɔndɔ* 'ellipse' are judged either marginally acceptable or even grammatically incorrect.

Analogy provides an explanation for the demarcation problem characterizing this marginal word class. Etymologically, many non-marked adjectives can be traced down to Tibetan, from which they have been loaned. Since these property-concept-like loans were semantically similar to the two native Geshiza adjective subclasses, they were also exposed to superlative formation. Subsequently, superlative formation was extended to native nouns that express some adjective-like semantic characteristics. Since this to an extent is a question of interpretation, the subclass consequently has blurry borders.

Finally, it is worth noting that non-marked adjectives borrowed from Tibetan are morphologically indivisible in Geshiza. Even though superlative forms, such as *zə-ɾɲoŋ* 'oldest' and *zə-zdu* 'most pitiable' also exist in Geshiza, these derive from stative verbs, not from the non-marked adjectives themselves. For instance, *zə-ɾɲoŋ* derives from the stative *verb ɾɲaŋ ~ ɾɲoŋ* (V1b) 'to get old' that has been borrowed into Geshiza from the same Tibetan root as the non-marked adjective.

4.5. Pro-forms

Geshiza pro-forms include personal pronouns (§4.5.1); demonstrative pronouns (§4.5.2); interrogative pronouns and other interrogative pro-forms (§4.5.3); reflexive-intensifier and anaphoric pronouns (§4.5.4); and other pronouns (§4.5.5). Since the language exhibits a complex argument indexation verbal system, a separate subject or object pro-form is often redundant in discourse. Save few exceptions discussed in §4.5.3, pro-forms belong to macro-nominals, which makes them compatible with number (see §5.2) and case (see §5.3) enclitics.

4.5.1. Personal pronouns

Geshiza personal pronouns distinguish three persons (first, second and third). The pronouns themselves do not distinguish number, but they host the two number (dual and plural) enclitics and the paradigmatic associative enclitic. Unlike nouns, a demonstrative pronoun without number or associativity marking always receives a singular, rather than an unspecified interpretation: e.g. *ŋa* 'first person singular', not 'first person'. For this reason, number marking with personal pronouns differs from the general pattern in noun phrases that may be unspecified for number (see §5.2.1). No inclusive-exclusive contrast is made in any person. As shown in Table 4.68 on the following page demonstrating the behaviour of the demonstrative pronouns with the core case enclitics (see §5.3), morphologically simple singular personal pronouns frequently fusion with the ergative and genitive case enclitics. The comitative and comparative case enclitics also adjoin personal pronouns, the absolutive case being unmarked in Geshiza.

Table 4.68. Geshiza personal pronouns with the four core case enclitics[45]

Person	ABS (unmarked)	Ergative *=wo*	Genitive *=je*	Dative *=ke*
1SG	*ŋa*	*ŋa=wo*	*ɲa=je ~ ŋɛ*	*ŋa=ke ~ æŋ=ke*
1DU	*ŋæ=næ*	*ŋæ=nəu*	*ŋæ=nɛ*	*ŋæ=næ=ke*
1PL	*ŋæ=ɲə*	*ŋæ=ɲu*	*ŋæ=ɲi*	*ŋæ=ɲə=ke*
2SG	*ɲi*	*ɲi=wo ~ ɲu*	*ɲi=je ~ ɲi*	*ɲə=ke ~ ɲi=ke*
2DU	*ɲə=næ*	*ɲə=nəu*	*ɲə=nɛ*	*ɲə=næ=ke*
2PL	*ɲə=ɲə*	*ɲə=ɲu*	*ɲə=ɲi*	*ɲə=ɲə=ke*
3SG	*lmæ*	*lməu ~ lmo*	*lme*	*lmæ=ke*
3DU	*lmæ=næ*	*lmæ =nəu*	*lmæ=nɛ*	*lmæ=næ=ke*
3PL	*lmæ=ɲə*	*lmæ =ɲu*	*lmæ=ɲi*	*lmæ=ɲə=ke*
3DU	*æde=næ*	*æde=nəu*	*æde=nɛ*	*æde=næ=ke*
3PL	*æde=ɲə*	*æde=ɲu*	*æde=ɲi*	*æde=ɲə=ke*

The personal pronoun system includes *ŋa* 'first person'; *ɲi* 'second person'; *lmæ* 'third person'; and *æde* 'third person non-singular' (i.e. dual and plural). Despite systematic and regular case cliticisation in general, the first and second person personal pronouns present the following irregularities. Unlike the other persons, 1SG lacks the paradigmatically expected fusional ergative form **ŋəu* (see also §5.3.2 concerning the optionality of ergative marking in speech-act-participant Agents). Since a non-fusional ergative form nevertheless exists, the first person pronoun shows no case-asymmetry vis-à-vis other hosts of case markers. Following, first and second person personal pronouns have two stems: a free stem (*ŋa, ɲi*) and a bound stem for case enclitics (*ŋæ-, ɲə-*). In the case of *ɲi ~ ɲə-*, however, the two stems frequently appear identically as *ɲi* due to the realisation of *ə* as *i* in fast everyday speech. The existence of two distinct stems somewhat resembles the system of compound stems (see §4.2.6). In addition, the dative enclitic in 1SG triggers a metathesis for many, though not all speakers: *ŋa* 'I' > *ŋæ=ke* (regular) ~ *æŋ=ke* (metathesised) '(to) me'. As a general tendency, the young people use the metathesised form, while some older speakers preserve the historically older analytic form. Finally, in the third person singular ergative, the regularly fusional form *lməu* alternates with *lmo* and the genitive *lme* slightly deviates from the expected *lmɛ*.

Pronoun dropping and pragmatic preference for kinship terms

Geshiza is a pro-drop language where pronouns are frequently omitted from the discourse for pragmatic reasons. Most verbs in the language index person with personal endings, at least part of which originate as affixed pronouns. When person of an argument is indexed to the verb,

[45] As discussed in §5.2.1, the number enclitics commonly fusion with the ergative and genitive case enclitics. The table excludes the rarer analytic forms: e.g. *ŋæ=næ=wo* for *ŋæ=nəu*. Also, the fusional genitive form of the second person singular pronoun *ɲi* appears identical with the absolutive due to regular vowel harmony.

independent pronouns are often omitted. As discussed in §2.3.3, in Geshiza exhibits a preference for kinship terms over names, and the same applies to personal pronouns that are often omitted in preference to an appropriate kinship term expressing the relationship between the speaker and the addressee.

Third person pronoun æde

As already mentioned, the distribution of the third personal pronoun *æde* (glossing: 3NON.SG) is limited to non-singular contexts (4.69) In other words, the pronoun requires either the dual or plural number enclitic that either attaches directly to it or to the noun phrase hosted by it. Consequently, (4.70) is ungrammatical. In comparison to the third person pronoun *lmæ* discussed below, *æde* is rarer in Geshiza. The pronoun is possibly a cognate for the Mazi Stau *adɛ* 'this' (Vanderveen 2015) that in contrast can also be used in singular contexts. The relationship between Geshiza *æde* and the Stau logophoric pronoun, e.g. Poxiu Stau *jide,* remains possible, but less conclusive without more comparative data.

(4.69) *lɔ* *æ-lə* *g-ə-rjəu.* ***æde=ɲə=ke***
more one-CLF.INDEF PREF-NACT-ask.1SG **3NON.SG=PL=DAT**

g-ə-rjəu=mde *s^{h}o.*
PREF-NACT-ask.1SG=MOD DM
I will ask again. I will ask them again. (RC)

(4.70) **lɔ* *æ-lə* *g-ə-rjəu.* ***æde=ke***
more one-CLF.INDEF PREF-NACT-ask.1SG **3NON.SG=DAT**

g-ə-rjəu=mde *s^{h}o.*
PREF-NACT-ask.1SG=MOD DM
I will ask again. I will ask them again. (REJ; see 4.69)

Third person pronoun lmæ

The third person pronoun *lmæ* probably derives from the Proto-Trans-Himalayan word 'person' reflected as *mi* 'person' in Written Tibetan, for instance. In Geshiza or at a prior linguistic stage it developed a meaning 'other person', subsequently gaining a function that can be synchronically be classified as a third person pronoun. The emphasis on generic 'other person' is still frequently visible in the pronoun and when translating the pronoun into Chinese, the Geshiza prefer *rénjiā* 人家 'other people'. Example (4.71) contrasts the safe space of one's home with stranger's houses where the consequences can be unpredictable:

(4.71) *we* *wə-tʰi.* ***lmæ=ɲi*** *xo* *wə-di-tʰi.*
home IMP-drink.NPST.2SG **3=PL.GEN** DEM.LOC IMP-IRR.NEG-drink.NPST.2SG
Drink (alcohol only) at home! Don't drink in their place (i.e. in other people's homes, since you cannot trust strangers whom you don't know)! (UA).

In addition to its referential function, *lmæ* has evolved an emphatic function. When the pronoun cooccurs with its antecedent in the same phrase, it serves the function of adding emphasis. The emphasis is added to noun (4.72) and second (4.73) pronoun subjects.

(4.72) *tsələ* ***lmo=wə*** *v-sʰæ* *tɕʰu.*
cat **3SG.ERG=ERG** INV-kill.NPST.3 CONJ
The cats, they kill them (i.e. mice). (RN: folktale)

(4.73) *<pʰiəutsə>* *ɕua* ***ɲi*** ***lmæ*** *ʤʐɔn-ræ.*
money search.INF **2SG** **3SG** be.capable.2-SENS
You are very capable looking for money (i.e. You are good at making money.) (MEE)

The emphasised pronoun must be in the singular. Plurals, such as **ɲə=ɲə lmæ* (2=PL 3SG) are unacceptable. Also, no first or third person pronouns can be emphasised with : **ŋa lmæ* (1SG 3SG), **lmæ lmæ* (3SG 3SG).

4.5.2. Demonstrative pronouns

Geshiza demonstrative pronouns (glossing: DEM) include *(j)e* 'prenominal modifier'; *tʰə* 'postnominal potentially freestanding demonstrative pronoun'; and *xə* 'postnominal freestanding demonstrative pronoun'. The system with the fusioned core case forms is shown in Table 4.69:

Table 4.69. Demonstrative pronouns in Geshiza

ABS (unmarked)	Ergative *=wo*	Genitive *=je*	Dative *=ke*	Locative
(j)e	n/a	n/a	n/a	n/a
tʰə	*tʰu*	*tʰi*	*tʰə=ke*	*tʰo*
xə	*xu*	*xi ~ xe*	*xə=ke*	*xo*

None of the demonstrative pronouns differentiates between proximal and distal locations, even in the locative function, as shown in (4.74) and (4.75) where the two have identical referents. The consultants frequently misreport a *tʰə* for *xə* and *vice versa* when transcribing recordings. Consequently their translation as 'this' or 'that' is arbitrary in the present work and relies on discourse context. It should be noted that Geshiza includes a wide range of spatial

adverbs and nouns that can be used for sophisticated coding of space (see §13.2 for deixis and coding of space), so lack of spatial distinctions in the demonstrative pro-forms causes no real communicative handicap.

(4.74) *ŋæ=ɲi* ***tʰo=be*** *ŋkʰæva* *gæ-ʑe=bɔ.*
1=PL.GEN **DEM.LOC**=too snow IPFV-come.3=MOD
It is snowing in our place too. (UA: WeChat message)

(4.75) *ŋæ=ɲi* ***xo=be*** *bəra=be* *dæ-dʑi* *zda.*
1=PL.GEN **DEM.LOC**=too TOPN=too PFV-EXV.3 AUX.EXP.PERF
He has been in our place, also in Balang Village. (RN: local history)

The demonstrative pronouns also co-function as an alternative to the third person personal pronouns. Vowel fusion with the ergative and genitive case enclitics creates fusional forms for *tʰə* and *xə*, illustrated in Table 4.69. In contrast, the prenominal demonstrative pronoun *(j)e* cannot host case enclitics. Also, the demonstrative pronouns differ from the personal pronouns by having a fusional locative form, possibly originating from the unproductive locative case suffix *-wo* (see §5.3.11)

The distribution of *(j)e* that is often reduced to *e* by many speakers differs from *tʰə* and *xə*. The demonstrative *(j)e* always functions as a pre-nominal modifier: e.g. *e rdʑælpə* 'this chieftain', *e mətɔ* 'this flower'. In most cases, the is placed directly before its head (4.76), but especially in folk tales narrated by old storytellers, long [eje][46] forms also surface (4.77), which are here tentatively interpreted as genitival and may constitute an archaism. The other two self-standing demonstratives lack the modifying function. Further research is needed to delineate their exact differences.

(4.76) ***e*** *sme* *gæ-mdze* *æ-lə*
DEM woman ADJZ-beautiful one-CLF.INDEF
that beautiful woman (RN: folktale)

(4.77) ***e=je*** *sʰi* *æ-qʰa=tʰə*
DEM=GEN wood one-CLF.stick=TOP
That stick of wood (RN: folktale)

The demonstrative *tʰə* has largely evolved into a topicaliser enclitic *=tʰə* (see §13.3), yet the original demonstrative still occurs in its stand-alone version (4.78), especially in genitive (4.79) and locative (4.74) contexts:

[46] Compare e.g. with Japanese *kono hon* 'this book' in which *kono* is historically analysable as *ko-no* 'this-GEN'.

(4.78) *ja,* ***tʰə*** *næ-ŋgi=mde.*
INTERJ **DEM** IMP-eat.2SG=MOD
Eat that! (RN: folktale)

(4.79) *ɲu* ***tʰi*** *noŋ* *wə-mtɕʰək^{h}i=mɔ.*
2SG.ERG **DEM.GEN** in IMP.DIR-watch.NPST.2SG=MOD
Watch inside this! he said. (RN: folktale)

4.5.3. Interrogative pronouns and other interrogative pro-forms

Interrogative structures are extensively dealt in §10.1 as a part of non-declarative speech acts, while the present morphological sketch merely lists the major forms present in the language and offers an outline of their characteristics. Interrogative pronouns are pro-forms used for forming questions. In Geshiza, they consist of subsets that are etymologically not connected to each other, listed in Table 4.70. Morphologically, the five interrogatives *sʰə* 'who'; *ætɕʰə* 'what'; *ləu* 'which, where'; *sʰədə* 'when'; and *xazi* 'how much, many' are simple while the others are complex by means of containing a root of a primary interrogative together with a suffix or another stem. This reflects a typological tendency according to which pro-forms for THING, PERSON, and PLACE tend to be morphologically unanalysable (Cysouw 2005).

Table 4.70. Interrogative pro-forms in Geshiza

Pro-form	Gloss	Pro-form primarily for
sʰə	who	human-referent NPs and personal pronouns
sʰi=tʰə	whose	independent possessives
ætɕʰə	what	non-human referent NPs
ætɕʰə-bɔlə	how much, many	numerals and classifier phrases
ætɕʰə-bɔ(tʰə)	how	NPs, adverbs, and clauses
ætɕʰə-vi	why	reason clauses
ləu, lo	which	nouns, NPs, adjectives
ləu, lotʰo	where	NPs
lotʰo-væ	person from where	demonym nouns formed with the suffix *-væ*
sʰədə	when	temporal nouns
xazi	how much, many	numerals and classifier phrases

Interrogative pro-forms are often distributed across several word classes (Schachter and Shopen 2007: 33). This characterises the situation also in Geshiza: for instance, *xazi* 'how many' shares its distributional properties with the word class of numerals and *sʰədə* 'when' with temporal nouns. Notwithstanding, the interrogatives resemble each other in function by turning a declarative sentence into a content question. For the sake of clarity, all interrogative pro-forms

are discussed here, rather than being scattered throughout the discussion of word classes.

The interrogatives *sʰə* 'who' and *ætɕʰə* 'what' append a limited number of case clitics. Like nominals in general, the former usually appears with the unmarked absolutive, ergative, genitive, dative, and comitative, the latter with the absolutive and dative (4.80). Unlike core nouns and other pronouns, however, the interrogative pronouns lack number marking: **ætɕʰə=ɲə*, intended meaning 'what=PL'.

(4.80) *ɲi* ***sʰi=pʰa*** *rgən.*
2SG **who.GEN=COM** sleep.2
Who do you sleep with? (OU; asking a family's baby daughter)

ætɕʰə *'what' and related pronouns*

The interrogative pronoun *ætɕʰə* 'what' is used for non-human referents, such as flora, fauna, objects, and abstract notions. In addition to standing alone (4.81), is used to form the complex interrogatives: *ætɕʰə-vi* (what-?)[47] 'why' (4.82), *ætɕʰə-bɔlə* (what-about) 'how much, many' (4.83), and *ætɕʰə-bɔ(tʰə)* (what-like) 'how, in what manner' (4.84). As mentioned in Dixon (2012: 414) it is typologically common for 'why' to be based on 'what'.

(4.81) *ŋu* ***ætɕʰə*** *gæ-de.*
2SG.ERG **what** IPFV-do.2SG
What are you doing? (OU)

(4.82) *braŋgu* ***ætɕʰə-vi*** *tɕɔ.*
TOPN **what-?** be.comfortable.NPST
Why is Danba County Town comfortable? (RC)

(4.83) *ŋæ=ɲi* *tʰo* *sʰo* ***ætɕʰəbɔlə*** *tɕʰa* *rə-tjin.*
1=PL.GEN DEM.LOC more **how.much** on DIR-come.NPST.2
Approximately how much more time and you come to our place? (UA: WeChat message)

(4.84) *qʰæsʰi* ***ætɕʰə-bɔtʰə*** *<sənrə>* *n-van=goŋ.*
tomorrow **what-like** birthday AB-LV:do.1PL=MOD
How will we celebrate the birthday tomorrow? (RC)

[47] The interrogative might contain *vi, the historical form of the light verb *və* 'to do'.

In addition, the interrogative *ætɕʰə* used in creating compounds for inquire information in more exact ways, for example *ætɕʰə-mdɔ* 'what colour' (*mdɔ* 'colour'); *ætɕʰə-dəntʰɔ* 'what matter' (*dəntʰɔ* 'matter') (4.85):

(4.85) ***ætɕʰə-dəntʰɔ*** *ŋuə=mde* *rjəu.*
what-matter COP.3=MOD ask.1SG
I will ask him what this matter is about. (RN: folktale)

sʰə *'who'*

The interrogative pronoun *sʰə* 'who' is used about human referents (4.86). In other words, the interrogatives *sʰə* 'who' and *ætɕʰə* 'what' primarily differ in the sense that the former is used for human referents, the latter reserved for non-human referent, like the overall behaviour of *who* and *what* in English. In personification, a figure with the attribution of human characteristics for non-human referents, such as natural phenomena, constitutes an exception to this general rule, non-human referents being allowed for the pronoun *sʰə* 'who'. The example (4.87) comes from a jocular folk story in which the speaker portrays the sky and clouds personified with human-like qualities, the clouds being consequently discussed with the pronoun *sʰə* 'who'.

(4.86) *ɲi* *æpæ* *æmæ* ***sʰə*** *ŋuə.*
2SG.GEN father mother **who** COP.3
Who are your father and mother? (RN: folktale)

(4.87) *'**mærŋə*** ***sʰə=ke*** *stɕær'* *jə-mə-ræ.*
sky **who=DAT** be.afraid.NPST.3 say.3-EP-SENS
'Who is the sky afraid of?' he (the chieftain) said.

'mærŋə=tʰə ***zdoma=ke*** *stɕær=mde.'*
sky=TOP **cloud=DAT** afraid.NPST.3=MOD
'The sky is afraid of the clouds.' (steward-in-chief answering)

'zdoma *lməu* *zgəu* *tɕʰu'* *dæ-jə-sʰə-mə-ræ.*
clouds 3SG.ERG cover.3 CONJ PFV-say.3-IFR-EP-SENS
'Since the clouds, they cover it,' he (the steward-in-chief) said. (RN)

The pro-form *sʰə* serves as the basis for *sʰi=tʰə* 'whose' that originates from a fusion with a demonstrative pronoun *=tʰə*: **sʰə=je tʰə* 'who=GEN DEM' As discussed in §5.5.1, this reflects ungrammaticality of headless possessive expressions in Geshiza (4.88):

(4.88) *e=tʰə* ***sʰi=tʰə*** *ŋuə-ræ.*
DEM=TOP **who.GEN=DEM** COP.3-SENS
Whose is this? (speaker A)

ŋɛ=tʰə *ŋuə-ræ.*
1SG.GEN=DEM COP.3-SENS
(It) is mine. (speaker B; MEE)

ləu ~ lo *'which' and related pronouns*
Geshiza has the distinction for unlimited and limited choice (cf. English *what, which*), the pro-form *ləu ~ lo* 'which' encodes a situation of limited choosing from two options upwards (4.89). See §3.5.4 for V ~ *əu* alternation in Geshiza.

(4.89) *ɲi* ***ləu*** *vɕe.*
2SG.GEN **which** want.NPST
Which one do you want? (MEE)

The pro-form 'which' is almost identical with the pro-form *ləu*, *lotʰo* 'where' that is used to encode static or dynamic existence location, the latter carrying 'ablative' (from) and 'illative' (into) roles. The only difference between the two is that while *ləu* has both functions, *lo* is used for 'which' and *lotʰo* for 'where'. When used, *lotʰo* and *ləu* 'where' are synonymous and used mutually interchangeably (4.90, 4.91):

(4.90) *ɲi* ***ləu*** *ɕin.*
2SG **where** go.NPST.2
Where are you going? (UA)

(4.91) *ɲi* ***lotʰo*** *ɕin*
2SG **where** go.NPST.2
Where are you going? (MEE)

Similar to *sʰi=tʰə* discussed above, *lotʰo* has its origins as a bipartite the proto-form containing the locative of the demonstrative pronoun *tʰə*: **lo tʰo* 'where DEM.LOC'. The pro-form takes the nativity and source suffix *-væ* (see §6.2.2.2) to form the complex pro-form *lotʰo-væ* 'person from where' for inquiring the ethnicity or origin of a person (cf. *stæwə* 'Daofu County' > *stæwə-væ* 'person from Daofu County'). Even though both *lotʰo-væ* and *ləu-væ* are accepted as grammatical, *lotʰo* is preferred in practice (4.92):

(4.92) *ɲi* ***lotʰo-væ*** *ŋuən.*
2SG **where-NAT** COP.2
Where are you from? (lit. Where-person are you?) (UA)

sʰədə *'when'*
The pro-form *sʰədə* 'when' is used for questioning the time of an event's occurrence (4.93):

(4.93) *ɲi* ***sʰədə*** *rə-tjin.*
2SG **when** DIR-come.NPST.2
When will you come? (UA)

xazi *'how much, many'*
The pro-form *xazi* 'how much, many' is used for asking about quantities (4.94). It attaches to a classifier, just like numerals do. In (4.95), the speaker tries to recall how many trees he cut, giving the answer by himself:

(4.94) *ndzo-ko* ***xazi*** *ŋuə.*
stay-NMLZ:LOC **how.much** COP.3
How much is the accommodation? (RC)

(4.95) ***xazi-qʰa*** *da-koŋ-sʰə=me.*
how.many-CLF.stick PFV-cut.PST.1PL-IFR=MOD
How many trees did we cut again?

rjɛ-qʰa, ***rjɛ-qʰa*** *dæ-koŋ,* *æ-ŋuə.*
eight-CLF.stick **eight-CLF.stick** PFV-cut.PST.1PL Q-COP.3
Eight, we cut eight (trees), right? (RN: chronicle)

When asking about the exact time, however, the placement of *xazi* reflects Chinese syntax, since the domain of exact time is commonly discussed with Chinese loanwords (4.96; see §7.4.10). In other words, (4.97) and (4.98) directly reflect the placement of the interrogative pronoun in the Chinese counterparts of (4.99) and (4.100), respectively.

(4.96) *qʰæsʰi* ***xazi*** ***<tiæn>=ke*** *rə-tjin.*
tomorrow **how.much** **o'clock=DAT** DIR-come.NPST.2
At what time will you come tomorrow? (UA: WeChat message)

(4.97) *xazi* *<tiæn>*
how.much o'clock
At what time?

(4.98) *<ɕintɕʰi>* *xazi*
week(day) how.much
On which day of the week?

(4.99) 几 点
jǐ *diǎn*
how.much o'clock
At what time?

(4.100) 星期 几
xīngqī *jǐ*
week(day) how.much
On which day of the week?

Difference between xazi *and* ætɕʰə-bɔlə

The Geshiza interrogative system does not distinguish countable and non-countable quantities, with the result that *xazi* and *ætɕʰə-bɔlə* are used in both instances. The difference between *xazi* and *ætɕʰə-bɔlə*, the other interrogative pro-form for quantities is primarily that of exactitude; the former is precise and the latter approximative. Since *ætɕʰə-bɔlə* consists of the fusion of *ætɕʰə* 'what', *bɔ* 'like', and *æ-lə* 'one-CLF.INDEF' (see §4.7.1 concerning the indefinite classifier), it is used for less exact interrogation, and can thus also be translated more exactly as 'approximately how much, many'. It is also used on occasion in contexts in which an exact reply is expected, yet asking directly for an exact numerical value would be considered culturally impolite, for instance on the occasion of asking elderly people their ages. Finally, an approximative form of **xazi-bɔlə*, intended meaning 'approximately how much, many' is deemed ungrammatical.

4.5.4. Reflexive-intensifier and anaphoric pronouns

The reflexive-intensifier pronoun *guədə* (glossing: self; ERG *guədo*, GEN *guədə*) emphasises the subject, marking contrast *ŋa guədə* 'I myself (rather than someone else)'. As in the previous example, it frequently follows a personal pronoun, further illustrated in (4.101). The pronoun may also be partially reduplicated with the semantic effect of plurality added: *guədə* > *guədə~də.* The emphatic pronoun also indicates that the subject carries out the action him/herself, without the participation or interference of others (4.102).

(4.101) *ŋɛ* ***guədɛ*** *lŋa=je* *<kontso>* *dæ-ma* *tɕʰa...*
1.GEN **self.GEN** child=GEN salaried.job PFV-NEG.EXV COND
If my own child did not have a salaried job… (MEE: interview)

(4.102) *ɲi* *ŋui* *næ-ŋgi.* *xæræ=kʰa* *ŋa* ***guədə*** *ŋgu.*
2SG before IMP-eat.2SG moment=about 1SG **self** eat.1SG
You eat first! I will eat after a moment myself. (MEE)

As shown in (4.103), the pronoun *ɲjæ* (ERG *ɲjəu*, GEN *ɲje*) appears with a reflexive-emphatic function similar to *guədə* discussed above and to the evolved emphatic function of the third person pronoun *lmæ* discussed in §4.5.1. More frequently, the pronoun is used anaphorically. It refers back to an entity that is active on the discourse stage as a result of having been mentioned previously (see §13.1.3 for a treatment in the context of reference tracking). For reasons of the most frequent function in the source materials, it is interpreted primarily as an anaphoric pronoun (glossing: ANAPH).

(4.103) *<ʈʂʰetsə>* ***ɲjæ=tʰə*** *wtɕʰəu-ko* *tɕʰa* *<ɕaɕæn>* *və=gæ.*
car **ANAPH=TOP** six-CLF.year on limit LV:do.3=MOD
The car itself has a use limit of six years. (RC)

The anaphoric pronoun *ɲjæ* likely originates from a reflexive pronoun. The evidence for this derives both language-internally and from related languages. First, *ɲjæ* has grammaticalised into a derivational reflexive prefix (see §6.2.3.9) in the verb system: *v-sʰæ* (V4) 'to kill someone', *ɲjæ-sʰæ* (V2b) 'to kill oneself, commit suicide'. Jacques (2010) shows that a reflexive pronoun *jaŋ can be reconstructed for Proto-Gyalrong. Geshiza *ɲjæ* is possibly a reflex of this pronoun.

4.5.5. Other pronouns

This subsection analyses the remaining pronouns in Geshiza: indefinite pronouns, the identity pronoun, and quantifiers. The term indefinite pronoun is commonly used rather widely in descriptive grammars. Adopting Haspelmath's narrow approach (1997: 9-13) with a functional-formal definition, indefinite pronouns are expressions functionally characterised as pronouns with the main function of expressing indefinite reference, such as English *someone* and *anyone*. Geshiza has few, if any, dedicated indefinite pronouns in this narrow sense, possible cases being discussed on the following page. The semantic field usually expressed through indefinite pronouns is covered with three strategies in Geshiza: 1. the generic noun *tɕʰæræ* 'thing' (4.104; see §4.2.2); classifiers with the bound numeral *æ-* 'one', including the classifier *æ-lə* used for marking indefiniteness (4.105; see §4.7 and §13.6.1); 3. interrogative pro-forms.

(4.104) Generic noun:

məsni=t^{h}ə	*s^{h}o*	***tɕ^{h}æræ***	*mɛ-dəu-s^{h}i.*
today=TOP	more	**thing**	ASP.NEG-do.1SG-IFR

I didn't do anything more today. (RN: chronicle)

(4.105) Classifier:

spjar	***æ-ɣri***	*v-se,*	*dærdʑe=wo.*
TOPN	**one-CLF.person**	INV-know.NPST.3	PN=ERG

dærdʑe knows someone in Bian'er. (RC)

ætɕ^{h}əroro *'whatever'*

The indefinite pronoun *ætɕ^{h}əroro* 'whatever' etymologically includes the interrogative pro-form *ætɕ^{h}ə* 'what' with a cranberry morpheme *-roro* of unknown meaning. Cross-linguistically, indefinite pronouns are frequently based on interrogative pro-forms (Haspelmath 1997: 26-27). Similar to *ts^{h}itsuku* 'whatever, all kinds of things' in Japhug (Jacques forthcoming: 2.6.3.) and *míŋtɕ^{h}òŋtɕ^{h}òŋ* 'whatever, everything' in Wadu Phumi (Daudey 2014: 136), it is often better translated as 'all kinds of things, everything' (4.106, 4.107). Against this backdrop, it is difficult to delineate between narrow indefinite and quantifier interpretations for *ætɕ^{h}əroro.*

(4.106)

ndzo-ko	*də-ræ.*	*oja*	***ætɕ^{h}əroro***	*də-ræ*	*tɕ^{h}u*
stay-NMLZ:LOC	EXV-SENS	INTERJ	**whatever**	EXV-SENS	CONJ

ŋæ=ɲə=be	*gə-rja*	*dæ-ndzoŋ.*
1=PL=also	DISTR-CLF.night	PFV-stay.3

There is a place to stay. There is whatever/everything/all kinds of things (available), so we too stayed there one night. (RN: personal history)

(4.107)

braŋgu=t^{h}ə	*s^{h}o*	***ætɕ^{h}əroro***	*də-ræ=bɔ.*
TOPN=TOP	DM	**whatever**	EXV.3-SENS=MOD

In Danba County Town, there is whatever/everything/all kinds of things! (RC)

Use of pro-forms for an indefinite function

Most non-derived Geshiza interrogatives can also be used in an indefinite sense. Similar behaviour, namely a single form operating in both interrogative and indefinite functions is widely attested cross-linguistically (Dixon 2012: 401). The pro-form *ləu* 'which' is especially commonly. Used for an indefinite function, it has a wider semantic scope 'whatever' (4.108, 4.109). Additionally, pro-forms used in universal concessive conditionals (see §12.3.3.2) receive a contextual indefinite reading: *ætɕ^{h}ə* 'whatever', *lot^{h}o* 'wherever' etc.

(4.108) ***ləu*** *dæ-v-ko-s^{h}i=t^{h}ə* *æqɛ* *və-jæɣuə* *rə-mbe=ræ* […]
which PFV-INV-give.PST-NMLZ:P all below-rooftop PFV.DIR-carry.3=LNK […]
Whatever was given, they took it all to the lower rooftop. (RN: personal history).

(4.109) *ŋɛ* *e=t^{h}o* *rji* *rtæʤi=ke* ***ləu*** *wi=t^{h}ə*
1SG.GEN DEM=DEM.LOC horse horses.and.mules=DAT **which** EXV=TOP

æqɛ *ɲi= ke* *k^{h}uæn.*
all 2SG=DAT give.NPST.2
Whatever my horses have here (as a load), I will give all to you. (RN: folktale)

The indefinite use of pro-forms use requires the contrastive topic enclitic *=nɔ* (see §13.3.2) in negative contexts (Table 4.71 and example 4.110). When the indefinite use is not possible, a classifier with the locative case clitic is commonly used. As an interesting divergent example, *s^{h}ədə~s^{h}əɲəu* with echo-word like partial reduplication exists as an alternative for *s^{h}ədə=nɔ* 'never', the former also qualifying for a genuine, derived indefinite pronoun.

Table 4.71. Indefinite use of pro-forms in negative contexts

Pro-form use		Indefinite use in neg. contexts		Alternatives	
ætɕ^{h}ə	what	*ætɕ^{h}ə=nɔ*	nothing	*tɕ^{h}æræ=nɔ*	not a thing
ləu	where	**ləu=nɔ*	n/a	*æ-ŋɛ=nɔ*	not any place
ləu(t^{h}ə)	which	*ləut^{h}ə=nɔ*	neither, not any	*tɕ^{h}æræ=nɔ*	not a thing
s^{h}ə	who	*s^{h}ə=nɔ*	no-one	*æ-ɣi=nɔ*	not even one
s^{h}ədə	when	*s^{h}ədə=nɔ*	never	*s^{h}ədə~s^{h}əɲəu*	never
xazi	how much, many	**xazi=nɔ*	n/a	*æ-rgəu=nɔ*, *æ-nts^{h}æ=nɔ*	not even one, not even a bit

(4.110) *ɲi* *ləu* *ɕin.*
2SG where go.NPST.2
Where are you going? (speaker A)

æ-ŋɛ=nɔ *mi-ɕoŋ=bɔ.*
one-CLF.place=TOP.C NEG-go.NPST.2=MOD
I am not going anywhere/I am going nowhere. (speaker B; MEE)

Quantifiers

Quantifiers express quantity and thus lie outside the narrow definitional scope of indefinite pronouns. Geshiza quantifiers consist of the mid-scalar quantifier *gərəu* 'some' and a set of four

major universal quantifiers with similar semantics, illustrated in Table 4.72 with selected examples (4.111-4.113). The quantifiers *gərəu, æqɛ,* and *stæ* are used both as noun quantifiers and independent pronouns. In the source materials, *t^{h}æmtɕæ* 'all, everyone, everything' and *gru(~gru)* 'ibid.', however, lack pronominal use.

Table 4.72. Geshiza quantifiers

Function	Pronoun	Gloss
Mid-scalar quantifier	*gərəu*	some
Universal quantifiers	*æqɛ*	all, everyone, everything
	stæ	all, everyone, everything
	gru(~gru)	all, everyone, everything
	t^{h}æmtɕæ	all, everyone, everything

(4.111) ***gərəu*** *wnæ-rjə,* ***gərəu*** *ŋuæ-sq^{h}a* *bɔt^{h}ə* *n-ə-vzə-s^{h}i*
some two-hundred **some** five-ten like PREF-NACT-make.3-NMLZ

ŋuə, *t^{h}ə=t^{h}ə.*
COP.3 DEM=TOP
Some make two hundred and some fifty of those (i.e. butter lamps for *tsong kha pa* Memorial Festival). (RN: ethnographic description/procedure; see §2.4.1 for the Festival).

(4.112) *ŋæ=ɲi* *tɕ^{h}a=nɔ* ***æqɛ*** *<xuaju>* *bɔ=zɔ* *dæ-ŋuə-s^{h}i* *ŋuə-ræ.*
1=PL.GEN time=TOP.C **all** butter like=only PFV-COP.3-NMLZ COP.3-SENS
In our time, (when giving) all (people gave as a gift upon the birth of a new baby) was only butter. (RC; see §2.4.3 concerning childbirth birth gifts in Geshiza culture)

(4.113) *ŋæ=ɲə* ***stəu*** *'zdoma'* *joŋ,* *æ-ŋuə-ræ.*
1=PL **all.ERG** cloud say.1 Q-COP.3-SENS
We all call (the entity on the sky) *'zdoma* (cloud)'. (RN: metalinguistic remark in a folktale)

stæ-ŋɛ 'everywhere'
The pronoun *stæŋɛ* 'everywhere' is morphologically compositional, containing *stæ* 'all, everyone, everything' and *-ŋɛ* 'place'. As a pro-form, it shows the same distribution as toponyms and locational nouns (4.114):

(4.114) *ntɕʰæra* *ɕoŋ.* ***stæŋɛ*** ***stæŋɛ*** *ɕoŋ.*
enjoy.oneself.INF go.NPST.1 **everywhere** **everywhere** go.NPST.1
We will go to enjoy ourselves. We will go everywhere. (RC).

Identity pronoun pʰe

Geshiza has one identity pronoun *pʰe* 'other, else' (4.115, 4.116):

(4.115) ***pʰe=tʰə*** *sʰo* *jə-me* *dæ-ma=ræ.*
other=TOP more say-NMLZ:S PFV-NEG.EXV=LNK
There were no more others saying (like that). (RC)

(4.116) ***pʰe=tʰə*** *mə-səu-ræ.*
other=TOP MOD.NEG-know.NPST.1SG-SENS
I don't know anything else. (RC)

4.6. Numerals

In Geshiza, numerals are a word class under the umbrella of macro-nominals. The language has two sets of numerals. The first set comprises native numerals and remains dominant in the language (§4.6.1). The second set consists of loanword numerals adopted from Sichuanese Mandarin, which have a far more restricted scope of usage (§4.6.2). Both sets function on a decimal basis. The interrogative pro-form for numerals is *xazi* 'how much, how many'(see § 4.5.3) with *in situ* placement (see §10.1.4 for the placement of interrogative pro-forms).

4.6.1. Native Geshiza numerals

The Geshiza native numerals refers to non-borrowed numerals present in the language, consisting of digits, teens, tens, and hundreds illustrated in Table 4.73. The native numerals give the speaker the possibility to count from 1 to 999. Numerals for thousand and ten thousand are nouns, but they are nevertheless discussed in the context of native numerals due to their functional properties.

Geshiza forms complex numerals from the native numerals through compounding. The digits adjoin a larger numeral unit on the right with a resulting additive semantic relationship between the stems: [NUM_1+NUM_2]. For instance, *ɣæ-rjɛ* [ten+eight] 'eighteen'. This contrasts with digits adjoining unit numbers on the left, which results in a multiplicative semantic relationship between the left-hand multiplier digit and the right-hand multiplicand [NUM_1×NUM_2]. To illustrate, *wʰsu-rjə* [three×hundred] 'three hundred'.

Table 4.73. Geshiza native numerals from 1 to 900

Digits		Teens		Tens		Hundreds	
rəu	1	*ɣæ-vrəu*	11	*zɣa*	10	*rjə*	100
wne	2	*ɣæ-mne*	12	*wnæ-sq^{h}a*	20	*wnæ-rjə*	200
ws^{h}u	3	*ɣæ-vs^{h}u*	13	*w^{h}su-sq^{h}a*	30	*w^{h}su-rjə*	300
wʑæ	4	*ɣæ-vʑæ*	14	*wʑæ-sq^{h}a*	40	*wʑæ-rjə*	400
ŋuæ	5	*ɣæ-ŋuæ*	15	*ŋuæ-sq^{h}a*	50	*ŋuæ-rjə*	500
wtɕ^{h}əu	6	*ɣæ-vtɕ^{h}əu*	16	*wtɕ^{h}əu-sq^{h}a*	60	*wtɕ^{h}əu-rjə*	600
ʂɲe	7	*ɣæ-ʂɲe*	17	*ʂɲæ-sq^{h}a*	70	*ʂɲe-rjə*	700
rjɛ	8	*ɣæ-rjɛ*	18	*rjæ-sq^{h}a*	80	*rjɛ-rjə*	800
ŋgæ	9	*ɣæ-ŋgæ*	19	*ŋgæ-sq^{h}a*	90	*ŋgæ-rjə*	900

Abbreviating complex numbers in counting

When counting sequences, between 21 and 99, the numerals appear in a reduced form that combines two digits without *-sq^{h}a* 'ten': *wnæ-vrəu* '21'; *wnæ-wne* '22'; *wnæ-ws^{h}u* '23'. In the compound, the leftmost digit takes a possible compound form discussed subsequently. The reduced forms make counting faster to perform. The phenomenon is typologically attested in unrelated languages, e.g. Indonesian (*limapuluh tiga* 'fifty-three' > *lima tiga*) and (spoken) Finnish (viiskyt viis 'fifty-five' > viisviis).

Compound stems of numerals

The Geshiza numeral paradigm is highly regular, but slight synchronic irregularities are easily noticeable. First, as the left-hand component of a compound numeral, the numerals *wne* 'two'; *ʂɲe* 'seven'; *rjɛ* 'eight'; and *zɣa* change into their compound stems (Table 4.74, following page). Second, the velar fricative in the bound form *ɣæ-* frequently reduces into a barely audible form or drops off altogether in casual speech: *ɣæ-mne* > *æ-mne* 'twelve'. Third, the numeral z*ɣa* 'ten' changes into the bound form *-sq^{h}a* in tens from 20 to 90. Currently unknown historical processes are likely responsible for this alternation.

The use of the compound stems shows slight irregularity. While *wne* 'two' changes into its compound stem in *wnæ-* in *wnæ-rjə* 'two hundred' (**wne-rjə*) and before a classifier, e.g. *ɣæ-mnæ-ko* (10-2-CLF.year) 'twelve years' (**ɣæ-mne-ko*), *ʂɲe* 'seven' and *rjɛ* 'eight' retain their independent form with hundreds, tens, and classifiers: *ʂɲe-rjə* 'seven hundred' (**ʂɲæ-rjə*), *rjɛ-rjə* (**rjæ-rjə*) 'eight hundred', *ʂɲe-ɣi* (seven-CLF.person) 'seven people' (**ʂɲæ-ɣi*).

Table 4.74. Compound stems of Geshiza native numerals

Independent numeral	Compound stem	Gloss
wne	*wnæ-*	two
ʂɲe	*ʂɲæ-*	seven
rjɛ	*rjæ-*	eight
zɣa	*(ɣ)æ-*	ten

The numerals 11, 12, 13, 14, 15, and 16 present slightly irregular morphology, deviating from the expected forms **ɣæ-rəu, *ɣæ-wne, *ɣæ-ws^{h}u, *ɣæ-wʑæ, *ɣæ-wtɕ^{h}əu*. The common denominator for all irregular forms is that they include a historical bilabial labial linker between the root 'ten' and that of the unit, analysed in Jacques (2017b) in the context of Japhug and Stau that exhibit a parallel phenomenon in their morphology. Jacques further notices that the appearance of the bilabial linker is phonologically conditioned: it appears in cases where the historical root of the unit number lacks an initial consonant cluster. Below, with a comparison of Geshiza digits with reconstructed PTH numerals for illustrative purposes only, I show that Jacques' observations equally also apply to Geshiza essentially unchanged, as demonstrated in Table 4.75. When the initial consonant of the digit number after the removal of a prefix starts with a nasal, the linker *-v-* assimilates and changes into *-m-* (numbers 12 and 16).

Table 4.75. Historical prefixes in the Geshiza numerals[48]

PTH reconstruction	Japhug	Geshiza	Gloss
*ʔit, *kat, *tjak ~ g-t(j)ik	*tɤɣ/ci*	*rəu*	one
*g/s-ni-s	*ʁ-nɯz*	*w-ne*	two
*g-sum	*χ-sɯm*	*w-s^{h}u*	three
*b-ləy	*kɯ-βde*	*w-ʑæ*	four
*l/b-ŋa	*kɯ-mŋu*	*ŋuæ* < *w-ŋæ*[49]	five
*d-(k-)ruk	*kɯ-tʂɤɣ*	*w-tɕ^{h}əu*	six
*s-ni-s	*kɯ-ɕnɯz*	*ʂɲe*	seven
*b-r-gjat ~ *b-g-rjat	*kɯ-rcat*	*rjɛ*	eight
*d/s-kəw	*kɯ-ngɯt*	*ŋgæ*	nine

Number words above hundred

Number words for above hundreds are borrowed from Tibetan: *stoŋ(p^{h}rɔ)* 'thousand' < WT *stong (phrag)* 'thousand'; *k^{h}ɪə* 'ten thousand' < *khri* 'ten thousand'; *mbən* 'very large number'

[48] Proto-Trans-Himalayan data from Matisoff (2003), Japhug data from Jacques (2017b). At the present stage, all PTH "reconstructions" must be taken with a grain of salt, since the nature of the proto-language remains uncertain.

[49] Duo'erji (1997: 88) quotes the numeral five as *wŋæ* (converted into IPA by the author). The number nevertheless appears always as *ŋuæ* in Balang Geshiza, being a clear example of historical metathesis: *wŋæ > *ŋuæ*.

< *'bum* 'hundred thousand'. Distinct from numerals discussed above, these borrowings are nouns, following a typological tendency. Number words belong to several word classes in some languages, and in such mixed systems, it is the relatively higher number words which are nouns (Dixon 2012: 77-78). Table 4.76 lists full thousands and tens of thousands formed with the borrowed number nouns:

Table 4.76. Geshiza numbers for thousands and tens of thousands

Thousands		Tens of Thousands	
stoŋpʰrɔ æ-lə	1000	*kʰrə æ-lə*	10,000
stoŋpʰrɔ-wne	2000	*kʰro-vne*	20,000
stoŋpʰrɔ-wʰsu	3000	*kʰro-vsʰu*	30,000
stoŋpʰrɔ-wɻæ	4000	*kʰro-vɻæ*	40,000
stoŋpʰrɔ-ŋuæ	5000	*kʰro-ŋuæ*	50,000
stoŋpʰrɔ-xtɕʰəu	6000	*kʰro-vtɕʰəu*	60,000
stoŋpʰrɔ-sɲi	7000	*kʰrə-sɲi*	70,000
stoŋpʰrɔ-rjɛ	8000	*kʰrə-rjɛ*	80,000
stoŋpʰrɔ-ŋgæ	9000	*kʰrə-ŋgæ*	90,000

The borrowed number nouns differ from Geshiza native numerals structurally. The native numerals used for modifying them follow their heads, as in *stoŋpʰrɔ-wne* (thousand-two) 'two thousand'. This differs from the compositional nature of native numerals where exactly the opposite happens: e.g. *wnæ-ɾjə* (two-hundred) 'two-hundred'. Also, the numbers *stoŋpʰrɔ æ-lə* 'one thousand' and *kʰrə æ-lə* 'ten thousand' occurring together with the bound numeral prefix *æ-* 'one' attached to the indefinite classifier *-lə* are used in lieu of the ungrammatical forms **stoŋpʰrɔ-rəu, *kʰrə-rəu.* With the following information, the general rule for forming compounds of full thousands and tens of thousands has the pattern [$NUM_1 \times NUM_{2(MULTIPLIER\ DIGIT)}$], except when the multiplier is one, in which case the resulting construction is not a compound, but a classifier phrase with a noun, bound numeral, and a classifier.

The compoundhood of full thousands and tens of thousands is morphophonemically justifiable. Just like in the context of numbers from 11 to 16, the word *kʰrə* 'ten thousand' triggers the need for the labial linker in the instances from 2000 to 6000. This is accompanied by a root modification by means of vocalic change in *kʰrə,* which changes into *kʰro.* Also, when talking units of *kʰrə* 'ten thousand', if the pragmatic context makes it clear, *kʰrə* can be omitted. In (4.117), the speaker is unsuccessfully attempting to purchase a car:

(4.117)	*ŋa=tʰə*	***'ɣæ-ŋguæ***	*kʰuæn'*	*dæ-joŋ-sʰə-mə*	***ɣæ-ŋuæ***
	1SG=TOP	**ten-five**	give.NPST.2	pfv-say.3-IFR-EP	**ten-five**

mi-zjə=ræ.
NEG-sell.3-SENS
I told him: 'I will give you fifteen (e.g. 150 000 yuan).' He does not sell for fifteen (e.g. 150 000 yuan). (RC)

Approximate number

Full unit numeral reduplication indicates an approximate amount that the speaker considers large, the possibilities listed in Table 4.77. For instance, *mtɕʰærmi rjə~rjə* (butter.lamp RED ~hundred) 'hundreds of butter lamps'. Further emphasising and underspecifying the exact quantity, *kʰrə~krʰə stoŋ~stoŋ* (RED~ten.thousand-RED ~thousand) is a conventional expression of an exceptionally large quantity without absolute value, as in (4.118).

Table 4.77. Full unit numeral reduplication in Geshiza

Base form	Gloss	Reduplication	Gloss
zɣa	ten	*sqʰa~sqʰa*	tens
rjə	hundred	*rjə~rjə*	hundreds
stoŋ(pʰrɔ)	thousand	*stoŋ~stoŋ*	thousands
kʰrə	ten thousand	*kʰrə~krʰə*	tens of thousands

(4.118) *zoŋ-rqua* *wi-me* *məu* ***kʰrə~kʰrə-stoŋ~stoŋ***
copper-throat EXV-NMLZ:S eye **RED~ten.thousand-RED~thousand**

wi-me *æ-ɣi=wo* *næ-vɕʰæ-sʰi.*
EXV-NMLZ:S ONE-CLF.person=ERG PFV-say.PST.3-SENS
A creature with thousands of eyes told it. (RN: folktale)

An approximate number emphasising inexactitude and small quantity can be expressed by means of juxtaposing two digits, most commonly *wne* 'two' and *wsʰu* 'three' (4.119, 4.120). Also, since the case qualifies for a compound, the left-hand stem must appear in the compound stem, if this is morphologically applicable:

(4.119) *æ-ɕʰu* *dæ-ndʑoŋ=ke* *<təfu>* ***wnæ-wsʰu-kʰue*** *gæ-ru*
one-CLF.moment PFV-sit.1=SEQ tofu **two-three-CLF.tofu** PFV-buy.1SG
After sitting (resting) for a while, I bought two-three pieces of tofu. (RN: chronicle)

(4.120) *jime=ɲə=læ* ***wnæ-wsʰu-qʰa*** *gæ-tɕʰu-sʰi.*
corn=PL=FOC **two-three-CLF.stick** IPFV-burn.PST-IFR
Two-three stalks of corn had become burned (by the Sun). (RC)

Bound numeral prefix æ-

Geshiza native numerals can occur independently or in tandem with classifiers (see §4.7). Every number except *rəu* 'one' has the same form for both independent and bound use. Exceptionally, the free-standing numeral *rəu* has a corresponding prefix formative *æ-* (4.121). In the example, a form **rəu-q^{h}a* is deemed ungrammatical.

(4.121) *rgən-bərzi* ***æ-q^{h}a*** *gæ-roŋ.*
silver-knife **one-CLF.stick** PFV-buy.1PL
We bought a silver knife. (RN: chronicle)

Unlike other numerals, the bound numeral prefix *æ-* has evolved many functions. 1. As shown above, it attaches classifiers, *æ-ɣi* 'one person'. Such formed classifier phrases often carry the meaning of indefiniteness (see §13.6.1). 2. The prefix adjoins other numerals to express the notion of approximation, potentially including all numerical values that do not change the digit it attaches to, except the digit itself. For instance, in (4.122), the prefix allows a range of values from 21 to 29:

(4.122) *zɣa* ***æ-wnæ-sq^{h}a-ko=be*** *məts^{h}æ* *dæ-t^{h}je-s^{h}i=bɔ.*
ten **one**-two-ten-CLF.year=even more PFV-become.PFV.3=MOD
Even ten, twenty-something years and more have passed since. (RN: personal history)

3. As discussed in §6.2.2.6, the bound numeral prefix derives collective nouns: *stɕəpa* 'villager' > *æ-stɕəpa* 'all villagers, villagers as a collective unit'. 4. It also derives semelfactive nouns from verbs: *rtɕ^{h}æ* 'to bite' > *æ-rtɕ^{h}æ* 'one biting, bite' (see §6.2.3.3). Both functions clearly reflect the semantic value of *æ-* 'one'. Table 4.78 summarises the primary uses of he bound numeral prefix *æ-:*

Table 4.78. Functional domains of the bound numeral *æ-*

Function	Example	Gloss
Bound numeral prefix	*æ-ɣi*	one person
Approximative prefix	*æ-wnæ-sq^{h}a*	twenty-something
Collective noun derivation	*æ-stɕəpa*	all people in the village
Semelfactive noun derivation	*æ-rtɕ^{h}æ*	one biting, biting once

4.6.2. Borrowed Sinitic numerals

A set of Sinitic numerals has been borrowed from the local Sichuanese Mandarin variant into Geshiza, listed in Table 4.79 below. Sinitic numerals are generally used for expressing absolute time, such as the date (4.123) and exact time of the day (4.124; see also §7.4.10 for coding the semantic role of Time). They are also used for quantities of money, especially when discussing higher quantities (4.125). Exact measurement of time and monetary economy have both strong links with the Chinese culture. Unlike the native numerals, Sinitic numerals do not appear with a classifier, unless the classifier too has been borrowed from Chinese (e.g. *tiæn* in 4.124). Finally, while *ar* and *nian* are both used for 'two', the latter predominantly occurs as the left-hand modifier in compound numbers and with the classifier *tiæn* 'o'clock', while the former is an independent form. This reflects their syntactic behaviour in Chinese.

Table 4.79. Sinitic numerals borrowed into Geshiza

Geshiza	Gloss	Chinese source	Gloss
ji	one	*yī* 一	one
ar	two	*èr* 二	two
nian	two	*liǎng* 两	two
sæn	three	*sān* 三	three
sə	four	*sì* 四	four
wu	five	*wǔ* 五	five
lu	six	*liu* 六	six
tɕʰi	seven	*qī* 七	seven
pa	eight	*bā* 八	eight
tɕiu	nine	*jiǔ* 九	nine
ʂə ~ sə[50]	ten	*shí* 十	ten
pe	hundred	*bǎ* 百	hundred
tɕʰiæn	thousand	*qiān* 千	thousand
wæn	ten thousand	*wàn* 万	ten thousand

(4.123) <***ar-ʂə-tɕu***> *=ke=ræ* <*tinkuoʂæn*> *wə-ɕʰoŋ.*
two-ten-nine=DAT=LNK TOPN PFV.DIR-go.PST.1
On the twenty ninth, I went up to Dingguoshan.

(4.124) <*tɕʰi-tiæn*> <***ar-ʂə***> *=ke* *dæ-rjan.*
seven-o'clock **two-ten**=DAT PFV-wake.up.1
I woke up at seven twenty. (RN)

[50] As discussed in §3.1.3, the marginal phoneme /ʂ/ resulting from Chinese influence on Geshiza is produced inconstantly across speakers.

(4.125) <*jitəntɕian*> =*je*=*t*^{h}*ə* <***ji-tɕæn-ar***> *ŋuə-ræ.*
first.price=GEN=TOP **one-thousand-two** COP.3-SENS
(The money) of the first price was 1200 (yuan). (RN: ethnographic description/ chronicle)

In the past, the Geshiza were aware of countable quantities up to the unit of tens of thousands. This still applies to many of the older generations. Chinese-medium education (see §2.7.5), however, is rapidly changing the situation, and the young are more comfortable discussing high quantities with Sinitic numerals. Consequently, the higher end of the native numeral system may become endangered in the future. The numeral *mbən*, originally from the Tibetan *'bum* 'hundred thousand' illustrates the point. While many elderly speakers still remember *mbən*, they generally take time to think or fail to reach a consensus of its meaning, frequently concluding that the numeral simply means a 'very high number'. The already archaic word is on its way of becoming obsolete. In contrast, due to education and increased integration of Geshiza Valley into the Chinese economic order, comprehending borrowed numerals *ʂə-wæn* 'hundred thousand' and *tɕ*^{h}*iæn-wæn* 'million' present no similar problems, especially to younger speakers.

Ordinals

Geshiza lack a native set of ordinal numerals. Consequently, the Chinese numerals are used for ordinals through prefixation with *ti-* < Chinese *dì* 第 'prefix for forming ordinal numerals'. Often in such cases, the whole phrase is in Chinese, which justifies interpreting the use also as code switching, rather than borrowing. In contrast, borrowed Tibetan ordinal numerals function as lunar month names in the traditional Geshiza calendars (see §2.4.1). Due to preference for Chinese, they are in practice seldom used as ordinal numerals, even though such formations through elicitation generally receive acceptance.

4.7. Classifiers

Classifiers (glossing: CLF) are a nominal classification system that may be placed in a mid-way point between lexical (e.g. *one loaf of bread* in English) and grammatical (e.g. gender and noun class systems) means of nominal classification (Grinevald 1999; 2000). Nouns in Geshiza frequently appear with classifiers, a distinct word class belonging to the macro-nominal complex (see §4.1). As a regional and genealogical characteristic, the language has a wide array of grammaticalised classifiers at its disposal. The use of classifiers is exclusive in Geshiza. In other words, classifiers form a paradigm from which only one member is selected for use at a given time. The classifiers never appear independently, instead attaching in a suffix-like manner into a numeral, the result of which is called a classifier phrase here. Thus, every classifier is

quoted here with the numeral prefix *æ-* 'one' (see §4.6.1) attached.

In addition to classifying and quantifying nouns, Geshiza classifiers frequently serve to narrow down the referential value of a noun, highlighting a contextual semantic interpretation from the whole possible semantic spectrum of a lexeme. For instance, *dʑa* 'tea' with the classifier *æ-qʰa* (long stick-like objects) refers to tea leaves pressed into brick-like form, while the classifier *æ-ʑæl* (cups, bowls, small containers) refers to tea as a drink prepared and served in a cup. Additionally, rather than classifying and quantifying, a classifier phrase frequently serve the function of referentiality, indicating indefiniteness with the numeral prefix *æ-* (see §13.6.1).

Adopting a broad division into subgroups, Geshiza has four kinds of classifiers: an indefinite classifier (§4.7.1); sortal numeral classifiers (§4.7.2); mensural numeral classifiers (§4.7.3); self-referential classifiers (§4.7.4); and quantifier classifiers (§4.7.5), summarised in Table 4.80. As an umbrella term, all these subgroups as a whole are referred to as classifiers in the present work. While sortal and most mensural classifiers share the same morphosyntactic properties, the mensural classifier subgroup of non-quantifying classifiers and self-referential classifiers exhibit idiosyncratic morphosyntactic features further discussed below. Finally, as their historical origin, Geshiza classifiers frequently originate from nouns and verbs through conversion, a topic discussed in the context of derivation (see §6.2.4.2).

Table 4.80. Geshiza classifier system

Classifier type	Subclass	Examples
Indefinite	Indefinite classifier	*æ-lə* 'a, an'
Sortal	General classifier	*æ-rgəu* 'one (e.g. animal, thing)'
	Animacy classifiers	*æ-ɣi* 'a person'
	Shape classifiers	*æ-lbe* 'a flat thing'
	Specific classifiers	*æ-gə* 'a written character
Mensural	Arrangement classifiers	*æ-rbə* 'a pile'
	Quanta classifiers	*æ-wmo* 'a sip, mouthful'
	Unit classifiers	*æ-tɕin* 'one *jin* unit, 500 grams'
	Kind classifier	*æ-sna* 'one kind'
Self-referential	Time classifiers	*æ-slə* 'a month'
	Hit classifiers	*æ-rgu* 'a hit with a fist'
	Locomotion classifiers	*æ-bar* 'a step'
Quantifier	Quantity: liquids	*æ-ʈsʰæ* 'a bit of a liquid'
	Quantity: others	*æ-ntsʰæ* 'little bit'
	Duration of time	*æ-ɕʰu* 'a moment'

4.7.1. Indefinite classifier

Geshiza has a frequently used indefinite classifier *æ-lə* that introduces actors to the stage. It has two characteristics. First, it only adjoins the bound numeral *æ-* 'one' or the distributive prefix *gə-* (see §5.5.4), other combinations, such as **wnæ-lə* 'two' being ungrammatical. Second, the indefinite classifier is semantically very vague and can be replaced by other sortal classifiers introduced below. For instance, in (4.126, 4.127), *æ-lə* can be freely replaced with *æ-ɣi*, the dedicated classifier for people. In all, from the viewpoint of its function, *æ-lə* serves as an indefinite marker in Geshiza (see §13.6.1 for a dedicated discussion) In this morphological overview, it is considered formally a classifier due to analogy. In other words, it's morphosyntactic behaviour and distribution reflects that of prototypical classifiers in Geshiza. Finally, as (4.126) illustrates, rather than being the sole device, the indefinite classifier *æ-lə* shares the function of coding indefiniteness with the other sortal classifiers that are additionally used as a categorisation device in the language.

(4.126)

pældæn	*ą̀pən*	***æ-lə***	*dæ-ŋuə-s^{h}i*	*ŋuə-ræ.*
PN	chief	**one-CLF.INDEF**	PFV-COP.3-NMLZ	COP.3-SENS

pældæn was a landlord. (RN: local history; see §2.3.4 for the name *(ą̀)pældæn* and §2.8.1 for the political system in Geshiza Valley prior to the region's incorporation to the PRC.

(4.127)

pældæn	*ą̀pən*	***æ-ɣi***	*dæ-ŋuə-s^{h}i*	*ŋuə-ræ.*
PN	chief	**one-CLF.person**	PFV-COP.3-NMLZ	COP.3-SENS

pældæn was a landlord. (ACC: see 4.71.)

4.7.2. Sortal numeral classifiers

Sortal numeral classifiers are defined by (Aikhenvald 2000: 115) as classifiers that categorise nouns in terms of their inherent properties, including animacy and shape. Geshiza has a relatively complex system of numeral classifiers, a feature shared with many languages of the region. Sortal numeral classifiers follow the classified noun, obligatorily adjoined to a numeral. They are thus bound words lacking independent use. The subclass is closed, i.e. no new sortal numeral classifiers are introduced into the language. Most sortal numeral classifiers are also both etymologically opaque and attested in related Horpa lects and Khroskyabs (see Lai 2017: 179 for a listing in Wobzi Khroskyabs), testifying for their long existence in the language. Table 4.81 on the following page illustrates the five primary sortal classifiers attested in Geshiza, specific sortal classifiers being discussed further ahead in the subsection. It is shown that the selection of a sortal numeral classifier reflects ontological divisions of the Geshiza world (see §2.7.2).

Table 4.81. Sortal classifiers in Geshiza

Category	Classifier	Gloss	Examples
General	*æ-rgəu*	one-CLF.general	*groŋ* 'village'; *mtsiʑo* 'polishing stone'; *pule* 'water wheel'; *vtɕə* 'mouse'; *wzəza* 'monkey'
Animacy/biology	*æ-ɣi*	one-CLF.person	*æmɲi* 'grandfather'; *æne* 'nun'; *ɟpən* 'leader'; *bæ* 'Tibetan'; *græpa* 'novice monk boy'; *stærvə* 'guest'
	æ-pʰo	one-CLF.plant	*ɕi* 'highland barley plant'; *sʰəpʰo* 'tree'; *ɕʰæsmæn* 'coriander plant'; *japʰiæn* 'opium poppy'
Shape	*æ-qʰa*	one-CLF.stick	*ɕʰæŋɔ* 'hook', *dəra* 'pipe for smoking'; *dzo* 'bridge'; *dʑə* 'fang, tusk'; *lævtɕoŋ* 'gun'
	æ-lbe	one-CLF.flat	*ɕɔvə* 'paper'; *ɕʰæl* 'sheet of glass; *ɖʑəpʰe* 'playing card'; *gælba* 'wooden blank'

General

Geshiza has one general sortal classifiers: *æ-rgəu*. It is used for all animals that are not perceived as stick-like (see *Shape* below): e.g. *wo æ-rgəu* 'one bear'. In addition, it is used for inanimate objects: e.g. *grə æ-rgəu* 'one boat'. While the non-general classifier is occasionally replaced by one of the general classifiers, the process is not universally applicable. The Geshiza sortal classifiers lack a hierarchical structure in which *æ-rgəu* can be used in lieu of any other classifier. To illustrate the point, *bəʑə* 'boy, young man' is countable with both the general classifier *æ-rgəu* and the person classifier *æ-ɣi*, yet *bəʑo* 'insect' must be of necessity counted with the classifier *æ-qʰa* for stick-like long objects due to a perceived similarity in shape.

Animacy

The category of animacy-based (alternatively biological) classifiers consists of *æ-ɣi* used for people and *æ-pʰo* for plants. Animacy for the speakers of Geshiza can be described as the property of objects capable *sʰæ* (V2b) 'to die' (see §2.7.2 for more). This brings people and animals to the sphere of animacy. Since plants are not considered to die, but rather *ʂnele* (V1b) 'to wither' and *wro* (V1b) 'to dry', they are inanimate in the Geshiza ontology.

In lieu of *æ-ɣi*, kinship nouns denoting a young individual nevertheless appear with the general classifier *a-rgəu: lŋæ-zə a-rgəu* 'a baby'.

Shape

Geshiza has two shape-based sortal classifiers: *æ-lbe* and *æ-q^{h}a*. Based on their dimensionality, Aikhenvald (2000: 271-274) classifiers shape classifiers into one-dimensional, two-dimensional, and three-dimensional. In practice, non-three-dimensional objects do not exist in the ordinary physical world perceived by people, which creates the need to define the Geshiza classifiers of physical property on prototypes. First, the classifier *æ-q^{h}a* classifies objects with a perceived stick-like elongated form for which only one dimension is prominent. It is also used for small animals whose body is perceived to have a long shape. Such animals are primarily insects: e.g *bəʑo* 'insect', *bətɕəu* 'centipede'. Second, adding a further dimension, the classifier *æ-lbe* is used for nouns that are conceptualised as two-dimensional flat surfaces as their main feature, such as pages of a book.

Specific classifiers

In addition to primary sortal classifiers, Geshiza also has several specific classifiers. The specific classifiers differ from primary sortal classifiers in terms of the range of classified nouns. While the primary sortal classifiers classify a wide range of nouns, the functional domain of specific classifiers is restricted to only one referent or a closed group of referents with few members. It is known that specific classifiers are generally culture-specific (Aikhenvald 2000: 273). Table 4.82 lists the major attested specific classifiers in Geshiza:

Table 4.82. Major specific classifiers in Geshiza

Classifier	Gloss	Examples
æ-bo	one-CLF.garlic.glove	*woskuə æ-bo* 'a clove of garlic'
æ-gə	one-CLF.letter	*rdʑæ-dʑədə æ-gə* 'a Chinese character'
æ-ɣæ	one-CLF.house	*we æ-ɣæ* 'a house, household'
æ-k^{h}ue	one-CLF.room	*k^{h}oŋsəu æ-k^{h}ue* 'a living room', syn. *æ-k^{h}o*
æ-k^{h}o	one-CLF.room	*k^{h}oŋsəu æ-k^{h}o* 'a living room', syn. *æ-k^{h}ue*
æ-ŋɛ	one-CLF.place	*s^{h}ætɕa æ-ŋɛ* 'a place'
æ-pætə	one-CLF.dpe.cha[51]	*bæ-dʑədə æ-pætə* 'a *dpe cha*'
æ-pən	one-CLF.book	*dʑədə æ-pən* 'a modern book'
æ-rts^{h}əu	one-CLF.harvest	*ʑe æ-rts^{h}əu* 'a harvest of wheat'
æ-tɕəu	one-CLF.tread.spool	*ɕəu æ-tɕəu* 'a treadspool of tread'
æ-zləu	one-CLF.set.of.clothes	*ts^{h}æzgə æ-zləu*'a set of clothes'

[51] *dpe cha* are traditional Tibetan books usually containing religious scripture. Despite lacking command of the Tibetan language, the Geshiza keep the *dpe cha* in the altar room as religious artifacts.

Typological remark

Gil (2013) divides the languages of the world into three groups in terms of sortal numeral classifiers: absent, optional, and obligatory. In this typology, Geshiza falls under the type obligatory, like many languages of the region.

4.7.3. Mensural classifiers

Mensural classifiers individuate in terms of quantity (Lyons 1977: 464). In contrast to sortal classifiers that categorise nouns based on their inherent properties, they categorise on the basis of temporal states. For instance, the mensural classifier *æ-ʑæl* in *mær-dʑa æ-ʑæl* (butter-tea one-CLF.cup) 'one cup of butter tea' refers not to an inherent property of the butter tea, but to its temporal state in the cup that can be altered. Geshiza mensural classifiers measure in terms of arrangement. Altogether 46 mensural classifiers were identified from the source materials distributed along the following subgroups: arrangement (1. collective, 2. divisive, 3. pairs and sets); 4. quanta; 5. units; and 6. kinds. The mensural classifiers are illustrated in Table 4.83 starting on the following page.

Mensural classifiers exceed sortal classifiers in number in Geshiza, which makes their exhaustive listing challenging. Moreover, even though language contact has led into shrinking of classifier systems in the Tibetosphere, illustrated by the case of Wutun (Sandman 2016: 88), Geshiza behaves in an opposite fashion. Chinese nouns, such as *dàguō* 大锅 'cauldron' frequently appear as borrowed ad hoc classifiers in Geshiza daily discourse: *æ-tako* 'cauldrons'. Some frequently-used instances establish themselves and permanently enter the language's lexicon.

Table 4.83. Geshiza mensural classifiers

Classifier	Gloss and explanation	Examples
1. Arrangement: collective		
æ-græl	one-CLF.line	*vdzi æ-græl* 'a line of men'
æ-k^{h}ær	one-CLF.circle	*sme æ-k^{h}ær* 'a group of women forming a circle'
æ-k^{h}u	one-CLF.human.group	'one group of friends'
æ-mp^{h}riva	one-CLF.string (mostly used for *xɛtso* 'red pepper')	*xɛtso æ-mp^{h}riva* 'a string of red pepper'
æ-mto	one-CLF.lump (e.g. excrement)	*rtɕɔpa æ-mto* 'a lump of excrement'
æ-mtɕɔ	one-CLF.group (e.g. packs of animals, groups of people, large aggregate of materials)	*ji æ-mtɕɔ* 'a flock of sheep' *vdzi æ-mtɕɔ* 'a group of people' *rtɕə-skæn æ-mtɕɔ* 'lot of dried Chinese cabbage'
æ-p^{h}ɔ	one-CLF.swarm (e.g. bees)	*bə-rbu æ-p^{h}ɔ* 'a swarm of bees'
æ-rbə	one-CLF.pile	*jime æ-rbə* 'a pile of corn'
æ-rguɔ	one-CLF.chunk (e.g. meat, medals)	*bjæno æ-rguɔ* 'a chunk of meat' *rŋən æ-rguɔ* 'chunk of silver'
æ-rtɕe	one-CLF.bundle	*ʑe æ-rtɕe* 'a bundle of wheat'
æ-wʑo	one-CLF.plant.group	*woŋbolapa æ-wʑo* 'group of cacti'
æ-zdi	one-CLF.piled.layer	*s^{h}i æ-zdi* 'one layer of piled firewood'
.2. Arrangement: divisive		
æ-jær	one-CLF.cut (e.g. rope)	*səri æ-jær* 'a piece of rope'
æ-mtɔ	one-CLF.cut (e.g. of fabric used as patches, slices, segments of field)	*lp^{h}æle æ-mtɔ* 'a patch for clothing' *bjæno æ-mtɔ* 'a cut of meat'
æ-ntu	one-CLF.drop (of liquids)	*məwblæ æ-ntu* 'one tear'
3. Arrangement: pairs and sets		
æ-p^{h}a	one-CLF.one.in.pair	*watsə æ-p^{h}a* 'one sock'
æ-t^{h}əu	one-CLF.natural.set (set of things that are perceived to frequently occur together)	*ts^{h}æzgə æ-t^{h}əu* 'set of clothes including trousers and a shirt or jacket'
æ-tɕ^{h}a	one-CLF.set.of.two (the set consists of two parts)	*doŋ æ-tɕ^{h}a* 'set of two Tibetan horns'
æ-vtɕa	one-CLF.pair	*jo-væ æ-vtɕa* 'a married couple'
4. Quanta		
æ-lua	one-CLF.bosomful (carrying things)	*rura æ-lua* 'one bosomful of grass'
æ-k^{h}ytæ	one-CLF.sackful	*wdʑo æ-k^{h}ytæ* 'a sack of flour'
æ-pi	one-CLF.alcohol.shot	*vo æ-pi* 'a shot of alcohol'

æ-q^{h}ua	one-CLF.sackful	*bræwə æ-q^{h}ua* 'a sack of buckwheat'
æ-q^{h}uə	one-CLF.bowlful	*mele æ-q^{h}uə* 'a bowl of noodles'
æ-rdi	one-CLF.kettleful	*dʑa æ-rdi* 'a kettle of tea'
æ-rzi	one-CLF.load.on.back	*jime æ-rzi* 'a load of corn carried on the back'
æ-spæ	one-CLF.cupped.hands (i.e. making both hands into a cup-like container)	*st^{h}ɔ æ-spæ* 'one cupped hands of beans'
æ-tako	one-CLF.big.cauldron	*wrə æ-tako* 'a big cauldron of water'
æ-tɕɔji	one-CLF.spoonful	*mbrɛ æ-tɕɔji* 'a spoonful of rice'
æ-ʈʂ^{h}e	one-CLF.carload	*vɕæ æ-ʈʂ^{h}e* 'a carload of dirt'
æ-ts^{h}otɕi	one-CLF.bamboo.container	*rtɕ^{h}o æ-ts^{h}otɕi* 'a bamboo container of dirt'
æ-ts^{h}ɔ	one-CLF.pipeful (for smoking)	*dəva æ-ts^{h}ɔ* 'a pipeful of tobacco'
æ-wdo	one-CLF.bucket	*va-dzi æ-wdo* 'a bucket of pig food'
æ-wmo	one-CLF.mouthful	*vo æ-wmo* 'a sip of alcohol'
æ-wni	one-CLF.leatherbag	*mbrə æ-wni* 'a leatherbag of cereals'
æ-ʑæl	one-CLF.cup (also bowls and small containers)	*dʑa æ-ʑæl* 'a cup of tea'
æ-xo	one-CLF.small.pack	*smæn æ-xo* 'a pack of medicine'
5. Units		
æ-po	one-CLF.po.units (斗; ≈ ten litres)	*rgəu æ-po* 'one po of wheat'
æ-rdʑæma	one-CLF.jin.unit (斤; half a kilo; *æ-tɕin* preferred by many)	*joŋji æ-rdʑæma* one jin of potatoes'
æ-ryæ	one-CLF.little.span (from thumb to index finger when stretched)	*k^{h}æsær æ-ryæ* 'one little span of cloth'
æ-sro	one-CLF.tael (两; 1/10 of a *jin* unit)	*rɲən æ-sro* 'one tael of silver'
æ-tən	one-CLF.meal	*dzi æ-tən* 'one meal'
æ-tɕə	one-CLF.great.span (from thumb to the middle finger when stretched)	*səri æ-tɕə* 'one big span of rope'
æ-tɕin	one-CLF.jin.unit (斤; in common use)	*pə æ-tɕin* 'one *jin* of sugar'
æ-zbri	one-CLF.zbri.unit (smaller than *po*; for measuring grain)	*st^{h}ɔ æ-zbri* 'one *zbri* of 'beans'
æ-ʐo	one-CLF.mace.unit (钱; 1/10 of a *jin*)	*æsær æ-ʐo* 'one mace of gold'
6. Kinds		
æ-sna	one-CLF.kind (types and kinds, primarily inanimate)	*ɲ̊ana-tonɕi æ-sna* 'a type, kind of ancient object'
æ-ts^{h}u	one-CLF.kind (types and kinds, both animate and inanimate)	*rgo æ-ts^{h}u* 'one kind of cows'

Arrangement refers to the configuration of objects Aikhenvald (2000: 274). For instance, the entity corn may be arranged in the form of a pile: *jime æ-rbə* 'a pile of corn', which is unrelated to its perceived inherent properties classified by sortal classifier. Arrangement in Geshiza mensural classifiers comprises the subgroups of collective, divisive, and pairs and sets. In collective arrangement, a mensural classifier refers to a quantifiable entity consisting of individuals or mass. For instance, *ji æ-mtɕɔ* 'a flock of sheep' is a quantifiable unit consisting of sheep; *rtɕɔpa æ-mto* 'lump of excrement' refers to a quantifiable unit of excrement, the source mass *rtɕɔpa* 'excrement' lacking quantifiable existence as an independent noun. The subcategory of divisive arrangement is rare in Geshiza. Rather opposite to collective arrangement, instead of lumping together, divisive arrangement creates quantifiable units from a source through division, e.g. *səri æ-jær* 'a cut of rope'. Finally, arrangement may also semantically focus on pairs and sets, in case of which a mensural classifier creates pairs and sets of cultural relevance: e.g. *æ-vtɕa* 'pair' in *rmæ-sno æ-vtɕa* 'a pair of a brother and a sister'.

Aikhenvald (2000: 274) defines quanta as similar to arrangement and referring to number or quantity of objects. Nevertheless, the definition makes distinguishing between arrangement and quanta difficult in Geshiza and is not followed here. In Geshiza, quanta classifiers are defined as classifiers that are containers of measurement, mostly in a concrete, but occasionally in a metaphorical way: *æ-wdo* (bucketfuls, a bucket as a concrete container), *æ-wmo* 'mouthfuls, the mouth as a metaphorical container'. They differ from arrangement classifiers, since conceptualising the latter as prototypical containers is more difficult: *æ-jær* 'cuts, e.g. of rope'.

Unit classifiers, a term coined here, quantify a noun in relation to a selected unit of measurement: *æ-tɕin* 'one *jin* unit, 500 grams'. Since most unit measurements in Geshiza are now carried out with Chinese loanwords, the subcategory has few members that remain in active use. For instance, the classifiers *æ-sro* (Tib. *srang*) and *æ-ʐo* (Tib. *zho*) borrowed from Tibetan and used for precious metals especially in coins are now rarely used (see Bertsch 2002: 1-5 concerning the two Tibetan currency units.

Geshiza contains the mensural classifiers *æ-sna* 'types and kinds (primarily inanimate)': *ɕɔvə-snæ-lŋa* 'one kind of colour paper'; and *æ-ts^{h}u* 'types and kinds (both animate and inanimate)': *rgo æ-ts^{h}u* 'one kind of cows'. Since the two cannot be placed anywhere else in above-introduced matrix of mensural classifiers, they constitutes a subgroup of their own.

Geshiza nouns exhibit more variation with mensural classifiers than with sortal classifiers. This is typologically common. Aikhenvald (2010: 115) states that the choice of a mensural classifier often depends on the temporary state of an object, which may give more freedom in choosing mensural classifiers in comparison to sortal classifiers. For instance, when *bjæno* 'meat' is counted with the mensural classifier *æ-mtɔ* 'cuts of meat' the result refers to one cut of meat. When the mensural classifier *æ-rguɔ* 'pieces, lumps' is used, the resulting classifier phrase means a big lump or a large piece of meat. In sum, while the inherent properties of a referent measured by sortal classifiers often remain constant, various temporal states may be imposed for a referent when it is measured by a mensural classifier.

Exceptional behaviour of kʰrə

The mensural classifier *kʰrə* 'classifier for the Chinese yuan' not listed in the table of regular mensural classifiers shows exceptional behaviour. It precedes the numeral as a free-standing form, rather than being bound to it (4.128). A historical explanation can be found for this. The Chinese currency (a.k.a. renminbi, Ch.人民币) consists of three subunits: *yuán* (元), *jiǎo* (角), and *fēn* (分). The ratio between the subunits is 1:10, i.e. one *yuán* corresponds to *jiǎo* 10 and 100 *fēn*. Unlike now, at the time when the Geshiza started using the Chinese currency, one *yuán* was a relatively large amount of money, so the Geshiza chose *fēn* as their reference unit, naming it *ɤjə* 'one hundred'. Following the ratio described above, *jiǎo* was called *stoŋ* 'thousand', *yuán* receiving the value *kʰrə* 'ten thousand'. Due to transformative economic development and inflation, however, *jiǎo* and *fēn* fell into disuse (see §2.5.1 on how Chinese coins are now not accepted in Geshiza villages anymore). In all, the consciousness on the etymology of *kʰrə* as 'ten thousand' has become vague and the word has gained a new function as an irregular classifier for money: e.g. *kʰrə wnæ-sqʰa* 'twenty yuan' (4.128):

(4.128) *xe* *ɲo* *pjækʰa,* ***<pʰiəutsə>*** ***kʰrə,*** ***<pʰiəutsə>*** ***kʰrə***
DEM.GEN after gift **money** **CLF.yuan** **money** **CLF.yuan**

wnæ-sqʰa […]
two-ten […]
Then (I gave) twenty yuan as a gift. (RN: chronicle; repetition of *pʰiəutsə kʰrə* hesitation)

4.7.4. Self-referential classifiers

Self-referential classifiers count themselves (Konnerth 2014: 142). The term is close to 'auto-classifier' coined by Matisoff (1973: 89) in the context of Lahu, a Lolo-Burmese language of Trans-Himalayan. In Matisoff's definition, however, some nouns may be their own classifiers, which leads into repetition. Due to this reason Aikhenvald (2010: 103) prefers the term 'repeaters' for such classifiers. Since Geshiza lacks a double appearance, such as **ko æ-ko* (year one-CLF.year) 'intended meaning: one year', both Matisoff's and Aikhenvald's terms are inappropriate, and the term self-referential classifier is adopted here. Geshiza self-referential classifiers lack a function as a noun categorisation device. Rather, they are close to mensural classifiers in the sense that they measure a quantity, albeit self-referentially (4.129). Geshiza self-referential classifiers consist of three major categories: time, hits, and movement, illustrated in Table 4.84 on the following page:

(4.129) ***æ-sni*** *<nian-pɛ>* *<kunli>* *bɔlə* *g-ə-rdʑoŋ-ræ.*
one-CLF.day two-hundred kilometre about PREF-NACT-drive.1SG-SENS
I drive about 200 kilometres a day. (RN: chronicle)

Table 4.84. Geshiza self-referential classifiers

Category	Classifier	Gloss	Explanation
Time: periods	*æ-ko*	one-CLF.year	years
	æ-slə	one-CLF.month	months
	æ-sni	one-CLF.day	days
	æ-gəɕʰo	one-CLF.evening	evenings
	æ-rja	one-CLF.night	late evenings or nights
Time: frequency	*æ-li*	one-CLF.time	times of occurrence
Time: hits	*æ-bi*	one-CLF.hit:stick	hits with a stick or whip
	æ-dʑær	one-CLF.hit:stone	hits by throwing stones
	æ-ltə	one-CLF.hit:head	hits with head
	æ-ndə	one-CLF.hit:knife	hits with a knife
	æ-ntʰsɔ	one-CLF.hit:needle	hits with a needle
	æ-rəu	one-CLF.hit:axe	hits with an axe when felling a tree
	æ-rgu	one-CLF.hit:fist	hits with the fist
	æ-rtsʰo	one-CLF.hit:kick	kicks with the feet
	æ-wʈʂæ	one-CLF.hit:claws	clawing (e.g. a daemon with claws)
Movement	*æ-bar*	one-CLF.step	steps
	æ-kʰær	one-CLF.round	rounds around an object
	æ-skær	one-CLF.return.trip	return trips

Self-referential classifiers and verbal quantification

Especially the self-referential classifiers of multiplicative hits and movement have a strong syntactic relationship with verbs with which they appear in a function similar to adverbs (4.130, 4.131). In the South-East Asian and Trans-Himalayan research tradition, classifiers of occurrence, e.g. once, twice, are sometimes called verbal classifiers (Aikhenvald 2000: 9).

(4.130) ***ɕʰiɕʰi*** *rə-ɕʰoŋ.*
slowly PFV.DIR-go.PST.1
We went up slowly. (RN: chronicle)

(4.131) ***æ-li*** *rə-ɕʰoŋ.*
one-CLF.time PFV.DIR-go.PST.1
We went up once. (ACC: see 4.75)

The self-referential classifiers of periods indicate the length of an action (4.132):

(4.132) *næ-ʑe-s^{h}i* *tɕ^{h}u* ***æ-rja,*** ***wnæ-rja*** *dæ-ndzo.*
PFV.DIR-come.3-IFR CONJ **one-CLF.night** **two-CLF.night** PFV-stay.3
They came and stayed one-two nights. (RN: chronicle)

The classifier *æ-li* (glossing: one-CLF.time) is the general device for indicating frequency in Geshiza, specifying the number of repetitions in a given activity. While not being restricted to this context only, it commonly occurs with verbs of movement, as shown in example (4.133):

(4.133) *sop^{h}o* ***æ-li*** *dæ-ɕ^{h}oŋ* *zda.*
PN **one-CLF.time** PFV-go.PST.1 AUX.EXP.PERF
I have been to Suopo once. (RN: personal history)

Self-referential classifiers of hits have narrow semantic ranges and express frequency of hits in Geshiza. They are primarily differentiated based on the instrument with which the hit is performed, e.g. knife, stick, fist (4.134-136). Such classifiers generally require the light verb *v-ra* (V3a) with the literal meaning 'to hit' as the predicate (see §4.7.1); the archaic verb *v-qe* (V3b) 'to throw' is also attested for *æ-dʑær* with the meaning 'to throw stones/pebbles X times'.

(4.134) ***xazi-rəu*** *gæ-rɛ.*
how.many-CLF.hit:axe IPFV-hit.2SG
How many hits did you hit (to fell the tree)? (MEE)

(4.135) *d-ə-k^{h}roŋ=væmɲi=ræ* ***æ-ndə*** *g-ə-roŋ.*
PREF-NACT-hold.NPST.1PL=CONJ=LNK **ONE-CLF.hit:knife** PREF-NACT-LV:hit.1PL
(When butchering pigs), after getting a hold of them, we stab them once. (RN: procedure)

(4.136) *<jænlup^{h}in>* ***wnæ-skær*** *dæ-və-s^{h}i.*
TOPN **two-CLF.return.trip** PFV-LV:do.3-IFR
He made two return trips to Yangliuping (RN: report).

Typological remark
Verbal classifiers are relatively neglected in grammatical descriptions. This excludes the use of the term in other research traditions, such as that of Amerindian languages, where verbal classifier refers to 'morphemes which occur on the verb and characterise a core argument in terms of its shape, form, consistency and other semantic properties' (Aikhenvald and Dixon 2011: 157). Phylogenetic units in Asia where verbal classifiers in the meaning used in this

grammar are attested include Japonic, Tai-Kadai, and Trans-Himalayan. *Inter alia*, references to verbal exist in works of Cantonese (Sinitic; Matthews and Leung 2001), Longxi Qiang (Qiangic; Zheng 2016: 116), Newari (Himalayish; Bhaskararao and Joshi 1985), Thai (Tai-Kadai; Lu 2012: 226-230; Matthews and Leung 2001), Zbu Gyalrong (Trans-Himalyan; Gong 2018: 129) and possibly Wutun (divergent Sinitic; Sandman 2016: 93). An areal survey of verbal classifiers in languages of Asia would be a valuable contribution to typological research.

4.7.5. Quantifier classifiers

Geshiza has classifiers that occur together with either the bound numeral *æ-* or the distributive prefix *gə-* (see §5.5.4) only. Such classifiers are termed quantifier classifiers here, illustrated in examples (4.137, 4.138) on the following page. Unlike the other classifiers, the inability to quantify exact numerical values makes them different from prototypical classifiers. Consequently, formations, such as **wnæ-nts^{h}æ* with the intended meaning 'two little bits' are ungrammatical. Rather, while sharing the morphosyntactic characteristics of prototypical classifiers of Geshiza, the quantifier classifiers functionally resemble quantifiers (see §4.5.5) and adverbs (see §4.9). Furthermore, as shown in (4.138) the compatibility with postpositions, a typical feature of macro-nominals, further supports their syntactic grouping as classifiers.

Table 4.85 below summarises the major quantifier classifiers of Geshiza, as attested in the source materials. Most Geshiza quantifier classifiers put an emphasis on the smallness of quantity. They branch into two subgroups: non-self referential and self-referential. Consequently, the non-self-referential unquantifiable classifiers can also be seen as a special subcategory of mensural classifiers, the self-referential unquantifiable classifiers being a special case of the self-referential classifiers.

Table 4.85. Major quantifier classifiers in Geshiza

Category	Classifier	Gloss and explanation	Examples
Quantity: liquids	*æ-ntər*	one-CLF.light.rain	*mæ æ-ntər* 'a bit of rain'
	æ-mtsa	one-CLF.bit.of.liquids	*wrə æ-mtsa* 'a bit of water'
	æ-ʈʂ^{h}æ	one-CLF.bit.of.liquids	*vo æ-ʈʂ^{h}æ* 'a bit of alcohol'
Quantity: others	*æ-nts^{h}æ*	one-CLF.little.bit (general)	*s^{h}i æ-nts^{h}æ* 'a bit of wood'
	æ-tsu	one-CLF.bit.of.meat	*nana æ-tsu* 'bit of meat'
	æ-s^{h}æ	one-CLF.maximum.capacity	*zgre æ-s^{h}æ* 'sky full of stars'
	æ-vk^{h}ə	one-CLF.one's.full (when eating)	*dzi æ-vk^{h}ə* 'one's full of food'
Duration of time	*æ-ɕ^{h}u*	one-CLF.moment (short)	self-referential
	æ-ɕ^{h}o	one-CLF.some.time (longer)	self-referential
	æ-mɲərəu	one-CLF.lifetime	self-referential
Distance	*æ-t^{h}ɔ*	one-CLF.short.distance (short distance or a short leg of a trip)	self-referential

(4.137) *m* ***e*** ***vo*** ***æ-ʈʂʰæ=tʰə*** *ɲ-zju=tɕe*
INTERJ **DEM** **alcohol** **one-CLF.bit.of.liquids** AB-sell.1SG=INSTR

mə-ŋi-ræ.
MOD.NEG-be.all.right-SENS
Hmm, it won't do for me selling this little bit of alcohol(, since I want to become rich even more quickly). (RN: folktale)

(4.138) *sʰo* ***æ-ɕʰo*** ***ɲo*** *skɛ* *rkʰo-ræ=bɔ.*
more **one-CLF.some.time** **after** more be.cold.NPST-SENS=MOD
After some time, it will be colder (here). (UA: WeChat message)

(4.139) *ɲi=ke=tʰə* ***æ-ɲtsʰæ*** *stɕoŋ-ræ.*
2SG=DAT=TOP **one-CLF.little.bit** be.afraid.NPST.1-SENS
I am a bit afraid of you. (RN: folktale)

4.8. Postpositions

Postpositions that express spatial and temporal relations form a minor word class in Geshiza with closed class membership in the category. At a higher level, this word class belongs to macro-nominals. After introducing relevant definitions (§4.8.1), this section discusses the ten major postpositions identified in Geshiza: *kʰætɕʰi* and *və* 'down, below' (§4.8.2); *tɕʰa* 'on, above' (§4.8.3); *noŋ* 'in, inside' (§4.8.4); *a̱tɕil ~ a̱tɕin* 'middle, centre' (§4.8.5); *lqəu ~ rqəu* 'among' (§4.8.6); *bærma* 'among, between, while' (§4.8.7); *sʰæɲo* 'behind'(§4.8.8); *ŋui* 'before' (§4.8.9); and *ɲo* 'after'(§4.8.10).

4.8.1. Definitions

Summary of cases and model of representation
Table 4.86 on the following page lists the ten major postpositions of Geshiza. In the subsequent discussion, the concepts of figure and ground originally introduced from Gestalt psychology into linguistics by Talmy (1972, 1975) are used. The ground functions as prototypically stationary reference point with respect to which a figure moves or is located. To illustrate in English: *The cat* (figure) *sleeps under the table* (ground).

Table 4.86. Geshiza postpositions

Postposition	Meaning	Spatial	Temporal
kʰætɕʰi	'down, below'	✓	✗
və	'down, below'	✓	✗
tɕʰa	'on, above, at the time'	✓	✓
noŋ	'in, inside, at the time'	✓	✓
ạtɕil ~ ạtɕin	'middle'	✓	✗
lqəu	'among'	✓	✗
bærma	'among, between, while'	✓	✓
sʰæmɲo	'behind, after'	✓	✓
ŋui	'before'	✗	✓
ɲo	'after'	✗	✓

Postpositions as a word class

Delimiting postpositions as a word class in Geshiza is in order before moving to discuss the forms. Postpositions have strong ties with both nouns and adjectives, but they also differ with the two in a notable manner. 1. Even though the postpositions generally appear as the heads of a postposition phrase preceded by a dependent, they share the possibility of free-standing existence with nouns and adjectives. This independent occurrence without a dependent is occasionally described as 'intransitive' use of postpositions in the literature (4.140):

(4.140) ***noŋ*** *wlæ* *mi-və-ræ.*
inside wind NEG-LV:do.3-SENS
There is no wind inside (the house). (MEE)

2. Differing with nouns and adjectives, postposition host no number clitics. 3. Like adjectives, but unlike nouns, most postpositions are compatible with superlative formation using the prefix *zə-* (4.141; see also Gao 163: 2015 for corresponding behaviour in a set of 'locative nouns' in Mu(n)ya a related language of the proposed Qiangic branch):

(4.141) *zə-tɕʰæ* *zə-tɕʰa* *zɔ-tɕil*
SUPL-big SUPL-on SUPL-middle
biggest (on) the highest above at the very middle

The superlative meaning of a postposition is either spatial or temporal, depending on the postposition. Spatial superlative meaning results in *zə-tɕʰa* 'on the highest above'; *zə-kʰætɕʰi* 'down the lowest below'; *zə-və* 'down the lowest below'; *zə-noŋ* 'most inside'; *zɔ-tɕil* 'at the very centre, middle'; ?*zə-bærma* 'in the very middle'. Temporal meaning arises in *zə-sʰæmɲo*

'in the end, at the very last'; *zə-ŋui* 'first'; and *zə-ɲo* 'last'. Superlative derivation of the postposition is contextually illustrated in example (4.142):

(4.142) ***zə-s^{h}æmɲo*** *da* *qloŋqloŋ* *dæ-t^{h}je-s^{h}ə-mə-ræ.*
SUPL-after INTERJ totally.empty PFV-become.PFV.3-IFR-EP-SENS
In the end, he was left with nothing. (RN: folktale)

4. Like nouns, yet differing from adjectives, postpositions appear as constituent stems in compounds: *ɲo* 'after', *ɲo-sni* (after-day) 'following day'. 5. Only the postpositions and nouns are compatible with a genitive dependent. The enumerated features are summarised in Table 4.87 below:

Table 4.87. Delineating Geshiza postpositions as a word class

Feature	Postpositions	Nouns	Adjectives
1. Self-standing	✓ (potentially)	✓	✓
2. Number clitic hosting	✗	✓	✓
3. Superlative derivation	✓	✗	✓
4. Compounding	✓	✓	✗
5. Genitive dependent	✓	✓	✗

Origin of Geshiza postpositions

Typologically, postpositions derive from two sources: serial verb constructions and relator nouns (DeLancey 1997a: 57). Approaching word classes through prototypes with fuzzy borders, rather than rigid and constantly mutually exclusive constructions, Geshiza postpositions are argued to be the result of a process in which a subset of nouns sifts their status into a new paradigmatic category of postpositions. In other words, they have decategorialised from nouns, with a resulting loss of some of the original characteristics pertaining to that word class. Subsequently, they have undergone recategorisation into a new category of postpositions.

Geshiza postpositions have grammaticalised through a phase generally known as relator nouns, a term coined by Starosta (1985). Mentioning the prevalence of relator nouns in languages of East and South-East Asia, among others, the author defines 'true' relator nouns as nouns by all of their relevant syntactic and morphological criteria (Starosta 1985: 112). Nevertheless, as shown above, Geshiza postpositions have already moved away from their nominal sources in a noticeable manner. Consequently, the term postpositions is preferred here over nouns or relator nouns, to emphasise their grammaticalised distinctiveness.

The constituent order of Geshiza postpositional phrase takes the form [[N (+ GEN)] + POST], in which the noun is replicable by a pronoun and genitive marking only rarely present. The path into the current postpositional phrase has likely taken the following historical steps (4.143):

(4.143) 1. genitive phrase: [[N=GEN] $N_{SPATIO\text{-}TEMPORAL}$]
2. relator noun phrase with obligatory genitive marking: [[N=GEN] $N_{RELATOR}$]
3. relator noun phrase with optional genitive marking: [[N(=GEN)] $N_{RELATOR}$]
4. postposition phrase with rarely attested genitive marking: [[N(=GEN)] POST].

At the core of the process lies the erosion of genitive marking. A certain subset of nouns with spatio-temporal meanings distinguished themselves from other nouns, forming a subclass of relator nouns. When the use of the genitive clitic on the dependent of the relator noun head became optional, their relationship construed in terms of a prototypical genitive phrase was terminated. As shown in example (4.144), the genitive marking on the dependent is currently obligatorily retained only with pronouns, e.g. the demonstrative pronoun *tʰə* (see §4.5.2):

(4.144) *tʰi* *tɕʰa*
DEM.GEN on
on this/that (spatial meaning), then (temporal meaning)

Comparison of folktales told typically by the elderly and other source materials from the younger speakers gives the impression is that at least some older Geshiza speakers retain the genitive marking with far higher frequency than the young ones, an issue deemed worth of further studies. In sum, all these signs indicate that Geshiza postpositions have diverged from their nominal source, and yet failed to reach a status of clearly definable new word class. A similar process described in Tibetan and Burmese, two other Trans-Himalayan languages discussed by DeLancey (1997a: 57).

Demarcating case enclitics and postpositions

Case marking and postpositions are two linguistic phenomena that exist in a continuum in the languages of the world. Now that postpositions have been demarcated from nouns as an independent lexical class in the process of grammaticalisation, they must also be compared against case clitics to establish the morphosyntactic functional range of the two. In Geshiza, the two have different distribution. As previously explained, postpositions may occur together with the genitive case. Consequently, the distributional order in a noun phrase, N (+ CASE ENCLITICS) + POST, helps to differentiate between the two categories.

Reduplication and triplication of postpositions

Geshiza postpositions exhibit characteristics typically lacking in case clitics. Postpositions exhibit limited reduplication to emphasise the postposition's property, the reduplicated form hosting the contrastive topic marker *=nɔ* (see §13.3.2) Alternatively, triplication may be used for further emphasis. This reduplicative use occurs with *tɕʰa* > *tɕʰa~tɕʰa(~tɕʰa)=nɔ* 'really high

up'; *və > və~və(~və) =nɔ* 'really low'; *ŋui > ŋui~ŋui(~ŋui)=nɔ* 'long time ago in the past'. As shown in (4.145, 4.146) when reduplicated, the forms do not function syntactically or semantically as postpositions anymore, but should rather be analysed as spatial and temporal nouns:

(4.145) *e* *we=tʰə* ***tɕʰa~tɕʰa=nɔ*** *də-ræ=bɔ.*
DEM house=TOP **RED~up=TOP.C** EXV-SENS=MOD
That house is really high up there! (UA)

(4.146) ***ŋui~ŋui~ŋui=nɔ*** *<xəuto>* *<niæn>* ***ŋui~ŋui=nɔ*** *dæ-ŋuə.*
RED~RED~before=TOP.C many year **RED~before=TOP.C** PFV-COP.3
It was a long time ago in the past, many years ago. (RN: local history)

Evolved function as adverbialisers
In some languages, the functions of adpositional noun adjuncts and adverbialisers can be served by the same words (Schachter and Shopen 2007: 50-51). In Geshiza, this applies to the postpositions *tɕʰa* 'on, above, at the time' and *ɲo* 'after' that also function as adverbialisers (4.147, 4.148; see also §12.3 for subordination in Geshiza):

(4.147) [*<tiæn>* *dæ-jɔ*] ***tɕʰa*** *tɕʰu* *mə-tɕɔ-ræ.*
[electricity PFV-go.off] **when** CONJ MOD.NEG-be.pleasant.NPST-SENS
When there is a power cut, it is unpleasant. (RN: local history)

(4.148) [*xə*] ***tɕʰa*** *tɕʰu* *mə-tɕɔ-ræ.*
[DEM] **time** CONJ MOD.NEG-be.pleasant.NPST-SENS
When there is a power cut, it is unpleasant. (ACC; see 4.147)

4.8.2. *kʰætɕʰi* and *və* 'down, below'

The postpositions *kʰætɕʰi* and *və* encode a spatial relationship in which a figure exists under a ground (4.149). They are largely synonymous in Eastern Geshiza, but *kʰætɕʰi* is preferred by the speakers in postpositional, non-self-standing use.

(4.149) ***e*** ***sʰəpʰo*** ***kʰætɕʰi=ræ*** *wmə* *æ-lə* *gæ-nto=ræ*
DEM **tree** **below**=LNK fire one-CLF.INDEF PFV-light.PST.3=LNK

xaræ *xo* *g-ə-nwə-mə-ræ-jə.*
CONJ DEM.LOC PREF-NACT-roast.3-EP-SENS-REP
Below this tree, he lighted a fire and roasted it (a bear) there. (RN: folktale)

Like the English preposition 'under', Geshiza *kʰætɕʰi* also has a metaphorical extension when someone is 'under' someone, e.g. in the army. In (4.150), an excerpt of a story of two generals, a young general has a beautiful wife and in addition, a group of treacherous underlings under his command:

(4.150) *ɹjəu* *gæ-mdze* *æ-lə* *dæ-dʑi=ræ* ***tʰi*** ***kʰætɕʰi***
wife ADJZ-beautiful one-CLF.NDEF PFV-EXV.3=LNK **DEM.GEN** **under**

<kəutʰuitsə> *<ji>* *<pʰo>* *dʑi-ræ=mɲoŋ,* *æ-ŋuə-ræ.*
lackey one CLF.lot EXV.3-SENS=MOD Q-COP.3-SENS
He had a beautiful wife and a group of 'lackeys' under him. (RN: folktale)

4.8.3. *tɕʰa* 'on, above'

As a partial antonym to *kʰætɕʰi* and *və,* the postposition *tɕʰa* signifies both spatial (4.151) and temporal (4.152) relationships in which a figure exists on a ground. A Tangut cognate *tɕʰjaa¹* with a locative function can be identified (Jacques et al. 2015), which illustrates that a grammaticalization process already started in the common ancestor of Tangut and Geshiza.

(4.151) ***<pæntən>*** ***tɕʰa*** *wə-ndzon.*
chair **on** IMP-sit.3
Sit on the chair! (UA)

(4.152) ***wnæ-ko*** ***tɕʰa*** *<ʂə-lu-wæn>* *ru-ræ=gæ.*
two-CLF.year **on** ten-six-ten.thousand find.1SG-SENS=MOD
I will earn 160 000 (yuan) in two years' time. (RC)

Like with *kʰætɕʰi* discussed above, the relationship encoded *tɕʰa* may also be metaphorical. In example (4.153), an accused steward-in-chief admits the superiority of his chieftain above him. Also, as a direct reflection of this, *tɕʰa* is also used as an alternative MARK in comparative constructions (see §7.7.3. *Other patterns*).

(4.153) *ɲi,* *ŋɛ* ***tɕʰa*** *ɲi=tʰə* *rdʑælpə* *ŋuən.*
2SG 1SG.GEN **above** 2SG=TOP chieftain COP.2
You, you are the chieftain above me. (RN: folktale)

4.8.4. *noŋ* 'in, inside'

The postposition *noŋ* indicates that a figure is inside a ground functioning as a container (4.164, 4.155). *pʰjə* 'outside', the semantic opposite of *noŋ*, appears only independently as a locational noun, and never as a postposition.

(4.154) *<guændzə>* ***noŋ*** *<fuwu>-və-me* *tʰu=wo* *'<pʰiəutsə>*
restaurant **in** service-LV:do-NMLZ:A DEM.ERG=ERG money

rə-kʰue' *jə.*
IMP-give.IPFV.2 say.3
In the restaurant, the waiter said: 'Give the money!' (RN: folktale)

(4.155) *oja* *rtsæ-qrə* *lji~lji* *tʰi* ***noŋ=tʰə*** *rtsæ-smæn*
INTERJ deer-antler RED.ADJZ~short DEM.GEN **inside**=TOP deer-medicine

ndʑə *jə* *tɕʰu* *smæn* *ndʑə-me* *ŋuə-ræ.*
EXV.3 say.3 CONJ medicine EXV-NMLZ:S COP.3-SENS
The short (new) deer antlers are said to contain velvet. (The short deer antlers) contain medicine. (RN: ethnographic description)

Geshiza also has a locative case enclitic *=nɔ* (see §5.3.7) that greatly resembles the postposition *noŋ*. In most cases, *noŋ* can be replaceable with *=nɔ,* which may be due to the phonological closeness of the two, resulting in an ongoing merger of the two. In the pair (4.156, 4.157), the speaker narrates that all Geshiza houses have a snake living in them, which can be encoded either with the postposition *noŋ* or with the case enclitic *=nɔ*:

(4.156) *ste* *we=**nɔ*** *mpʰri* *gə-qʰa* *dʑi-me* *ŋuə-ræ=gæ.*
everyone.GEN house=**LOC** snake DISTR-CLF.stick EXV-NMLZ:S COP.3-SENS=MOD
In everyone's house, there is one snake. (RN: ethnographic description)

(4.157) *ste* *we* ***noŋ*** *mpʰri* *gə-qʰa* *dʑi-me* *ŋuə-ræ=gæ.*
everyone.GEN house **in** snake DISTR-CLF.stick EXV-NMLZ:S COP.3-SENS=MOD
In everyone's house, there is one snake. (ACC; see 4.156)

4.8.5. *ạtɕil ~ ạtɕin* 'middle, centre'

In a locative sense, the postposition *ạtɕil ~ ạtɕin* (see §3.5.2 for variation in pronunciation) expresses the existence of a figure at the middle of a background (4.158, following page). The word-initial *ạ* and coda alternation point towards a Tibetan origin, and it is argued here that the postposition is a loan from the Tibetan *dkyil* 'middle, centre'. As a postposition, *ạtɕil ~ ạtɕin* lacks a temporal sense. The word nevertheless appears in a temporal sense as a part of the compound word *ɕʰɔ-tɕin* 'midnight', literally 'in the middle of the night'.

(4.158) *rirəu* *ws^{h}u=je* ***ɑ̱tɕil=ræ*** *tɕo-mts^{h}o* *æ-lə*
mountain three=GEN **middle=LNK** iron-lake one-CLF.INDEF

gæ-tɕɔ-s^{h}i.
IPFV-emerge.PST-IFR
In the middle of three mountains there is an iron lake. (RN: folktale)

4.8.6. *lqəu ~ rqəu* 'among'

The postposition *lqəu ~ rqəu* has two possible forms and it encodes a focal figure among others. For instance, in (4.159), the poor person travels into the mountains among the trees. In (4.160), the beauty pageant contestants are selected from among twenty.

(4.159) *mi-ntɕ^{h}o-me* *æ-ɣi* *dæ-dʑi=ræ* *k^{h}ɔ* *jiɳdʑɑ̱n*
NEG-have-NMLZ:A one-CLF.person PFT-EXV.3=LNK INTERJ often

rzæqo *d-ə-mgo=ræ* *s^{h}o,* *s^{h}o* *s^{h}əp^{h}o*
basket PREF-NACT-carry.3=LNK DM DM tree

rqəu=zɔ *rə-ve-ræ.*
among= EMPH DIR-go.SUPPL.3-SENS
There was a poor man. Every day he carried a basket and went up to the forest (lit. among the trees). (RN: folktale)

(4.160) […] *wnæ-sq^{h}a-ɣi* *t^{h}i* ***lqəu=ræ*** *məsni* *t^{h}i*
[…] two-ten-CLF.person DEM.GEN **among**=LNK today DEM.GEN

lqəu=ræ *<tsɛɕyæn>* *dæ-və* *ɲo* *tɕ^{h}u* […]
among=LNK reselection PFV-LV:do.3 after CONJ […]
After selecting again (beauty pageant contestants) from among them, from among the twenty… (RN: ethnographic description)

4.8.7. *bærma* 'among, between, while'

In contrast to *lqəu ~ rqəu* with only spatial use, the postposition *bærma* expresses the relation of a figure among or between a ground. It has been borrowed from the Tibetan *bar ma* 'middle, between'.

(4.161) *'e* *t^hi* ***bærma*=*ræ*** *ɲu* *gæ-rjæ~rjɛ'* *joŋ.*
DEM DEM.GEN **among**=LNK 2SG.ERG IMP-RED~ask.2SG say.1
'Ask among them,' I am saying! (RC; reduplication in the verb indicates plurality of object, namely several people that need to be asked; see also §4.3.5.5)

In its temporal sense, *bærma* expresses that a certain event occurs within the frame of flowing time (4.162). This can also be conceptualised from the viewpoint of figure-ground structure, in which the even functions as a figure in a ground of time flow, emphasising the underlying conceptual similarity with the spatial use.

(4.162) […] *ɲu* *ja* ***wnæ-ko*** ***bærma*** *ɲi* *<$tʂ^hetsə$>*
[…] 2SG.ERG INTERJ **two-CLF.year** **while** 2SG.GEN car

æ-rgəu *mdʑə* *vɕe-me* *ŋuə-ræ=gæ.*
one-CLF.general change.INF AUX.need-NMLZ:S COP.3-SENS=MOD
Within the timeframe of two years, you need to change the car. (RC)

4.8.8. *$s^hæmɲo$* 'behind'

The postposition *$s^hæmɲo$* expresses the existence of a figure behind a ground. The relation may be spatial (4.163) or temporal (4.164), in the latter case of which an event chronologically follows another in a temporal sequence. The latter use frequently appears in narratiosn of events.

(4.163) *$tɕ^hu$* *lməu* *je* *ænɕoŋma* *$e=t^hə$* *lot^ho* *rə-ve-mə=na*
CONJ 3SG.ERG DEM PN DEM=TOP where DIR-go.SUPPL.3-EP=CONC

xe ***$s^hæmɲo$*** *rə-wɲo* *rə-$ɕ^hə$-$s^hə$-mə-ræ.*
DEM.GEN **behind** PFV.DIR.follow.3 PFV.DIR.go.PST.3-IFR-EP-SENS
Wherever that Princess (Wencheng) had gone (on her way to Tibet), he (*mgar*) went after her, following behind. (RN; see §2.7.4. s*tandardisation of folklore* concerning the two famous protagonists in Tibetan folklore)

(4.164) *o* *t^hi* ***$s^hæmɲo$,*** ***$s^hæmɲo$*** *xaræ* *<tiænʂə>*
INTERJ DEM.GEN **after** **after** CONJ television

gæ-v-tæpæ *$tɕ^həs^ho.$*
IPFV-INV-take.out.PST.3 DM
After this, televisions were launched (to the consumer market and thus became available). (RN; see §2.7.4. *Electrification and storytelling* concerning electrification and its effects on traditional forms of culture)

4.8.9. *ŋui* 'before'

The postposition *ŋui* 'before' expresses a temporal sequence, in which an even has temporal priority of an event vis-à-vis a reference point (4.165):

(4.165) *læsær* ***ŋui*** *=ræ* *ts^{h}ə-p^{h}ru* *æ-li* *d-ə-loŋ.*
New.Year **before**=LNK dirt-white one-CLF.time PREF-NACT-LV:release.1PL
Before the New Year, we apply the white paint once. (RN: ethnographic description; see §2.4.1. *Tibetan New Year and smon lam Prayer Festival* concerning the custom of repainting the houses before the Tibetan New Year.)

4.8.10. *ɲo* 'after'

As an antonym to *ŋui,* the postposition *ɲo* 'after' expresses temporal posteriority of an event vis-à-vis a reference point (4.166):

(4.166) *rgæn=t^{h}ə~t^{h}ə* *læsær* ***ɲo*** *<sæn-jyefən> =ke* *rgæn*
early.corn=TOP~RED New.Year **after** three-month=DAT early.corn

g-ə-ʑoŋ.
PREF-NACT-plant.1PL
Then (lit. after that) there is t the early corn. We plant the early corn after the New Year in March. (RN; see §2.5.2 concerning agricultural life among the Geshiza)

Used metaphorically, *ɲo* indicates reason (4.167):

(4.167) *ɲi* *smæn-ræ* *tɕ^{h}u* *ɲi* ***ɲo*** *bəra* *dæ-ʑan.*
2SG like-2-SENS CONJ 2SG **AFTER** TOPN PFV-come.1
I like you, so I came to Balang Village for your sake/because of you. (MEE)

4.9. Adverbs

Extending the traditional functional definition of adverbs as modifiers of verbs, adjectives, and other adverbs, Schachter and Shopen (2007: 20) define adverbs as modifiers of constituents other than nouns. Geshiza has a closed class of adverbs that prototypically modify verbs, in most cases appearing at the pre-head position (4.168). See §7.8.2 for a more detailed discussion on adverb placement. Also, it is common in Geshiza to use adjectives adverbially without morphological modification, as in (4.169):

(4.168) ***ɕʰiɕʰi*** *rə-ɕʰoŋ.* *rə-ɕʰoŋ.*
slowly PFV.DIR-go.PST.1 PFV.DIR-go.PST.1
We went up slowly; we went up. (RN)

(4.169) [name removed] ***ltʰə~tʰə*** *wə-ndzon.*
[name removed] **RED.ADJZ~straight** IMP-sit.2
Sit straight, [name removed]! (OU)

Categories of adverbs

Unlike e.g. in English *(quick > quick-ly*), Geshiza adverbs lack any morphological marking. Also, there are no formal criteria to divide adverbs into subclasses. Consequently, divided here along semantic lines, adverbs in Geshiza include the subcategories of 1. degree, 2. manner, 3. direction, 4. time, 5. frequency, and 6. modality, exemplified in Table 4.89 on the following page. Some adverbs have functional range covering several of the semantic categories. The adverb *gəndɔ* 'strongly' has become polysemous, also being used as an adverb of degree 'a lot' (4.170, 4.171):

(4.170) *o* *bəra-væ=tʰə* ***gəndɔ*** *mɛ-v-dæ-sʰi*
INTERJ Balang-NAT=TOP **strongly** ASP.NEG-INV-curse.and.hit.3-NMLZ

ŋuə-ræ *pældæn=ke.*
COP.3-SENS PN=DAT
(After he was deposed from rule as a result of incorporating Geshiza lands to the PRC), Balang villagers did not curse and hit him (the former landlord *pældæn*) too much. (RN: local history; see *Appendix IV: List of prominent figures* concerning landlord *pældæn* of Geshiza)

(4.171) *<pʰiəutsə>* ***gəndɔ*** *ma-ræ=bɔ,* *<pʰiəutsə>=tʰə.*
money **lot** NEG.EXV-SENS=MOD money=TOP
There is not a lot of money. (RC)

The use of adverbs from each semantic grouping is illustrated with subsequent examples (4.172-4.177):

Table 4.89. Examples of Geshiza adverbs arranged semantically

Semantic Type	Example	Gloss
1. Degree	*jəlæ*	approximately
	kəŋkən	not at all (with a negative)
	mətsʰæ	more than
	mæŋe	to an excess
	miɳdʐ̩ava	somewhat
	skæra	approximately
	sʰætsʰæ	many, a lot, in great numbers
	sʰo	more
	wətsʰe	many, a lot, in great numbers
2. Manner	*gəndɔ*	strongly, applying power or care
	mdʐɔmdʐɔ	at once, right away
	mpʰrɔmpmrɔ	successively, in a row
	rdən	exactly
	roŋpa	intentionally
	ɕʰærɕʰær	fast, quickly
	ɕʰiɕʰi	slowly, carefully
3. Direction	*wə-ro*	towards downriver
	gæ-ro	towards upriver
	rə-ro	away from the river
	næ-ro	towards the river
4. Time	*bartɕʰu*	after a while, after some time
	dær	through the whole day or night
	kotsə	after some time
	xaræ	in a moment
5. Frequency	*æleælɨ̃*[52]	sometimes
	jiɳdʐ̩an	often, frequently
	jiɳdʐ̩i~ɳdʐ̩an	every day
	kre	frequently (rare in Eastern Geshiza)
	lɔ	again
	rde	often, frequently (not used by all)
6. Modality	*æmæ*	maybe, perhaps
	kʰonen	maybe, perhaps
	ʐ̩ma	really, certainly

[52] From reduplicated self-referential classifier *æ-li* (see §4.7.4).

(4.172) Degree:

sʰo	*æ-tɕɔji=be*	*næ-ŋgi.*
more	one-CLF.spoonful=too	IMP-eat.2SG

Eat at least one more spoonful of rice! (UA) (Spoon refers here to the larger common spoon used for taking rice to one's individual bowl.)

(4.173) Manner:

ɕʰiɕʰi	*næ-ŋgi.*	*ŋa*	*lŋa*	*mtɕʰikʰu=bɔ.*
slowly	IMP-eat.2	1SG	child	watch.1SG=MOD

Eat slowly! I will look after the children. (UA)

(4.174) Direction:

næ-ro	*rjəu*	*rjæ*	*ɕə*	*tɕʰan=za.*
DIR-ADV	wife	ask.INF	go.INF	AUX.can.NPST.2=Q

Do you manage to go downwards (from the viewpoint of Tibet to the land of the Chinese) to ask (Princess Wencheng) for my wife? (RN: folktale)

(4.175) Time:

æ-ɕʰu	*ndzoŋ=ræ*	***bartɕʰu***	*ɕoŋ.*
one-moment	sit.1=LNK	**after.a.while**	go.NPST.1

I will rest a while and then go. (MEE)

(4.176) Frequency:

o	*zəva*	*jə-me=tʰə~tʰə*	*sme=ɲu*	*gædə*	*gædə*
INTERJ	*zəva*	say.3-NMLZ:P=TOP~RED	woman=PL.ERG	morning	morning

jiɳʤan	*zəva*	*g-ə-v-læ.*
frequently	*zəva*	PREF-NACT-INV-LV:release.3

Every day in the morning the women say the *zəva* prayer. (RN: cultural description)

(4.177) Modality:

ʑma	*gæ-vɕʰe*	*tɕʰa*	*ɕʰærɕʰær*	*xə*	*mi-ʤʑæn,*
really	IPFV-need.PST	when	fast	DEM	NEG-remember

xə	*mi-ʤʑæn-me*	*dæ-tʰje-sʰi*	*ŋuə-ræ.*
DEM	NEG-remember-NMLZ:P	PFV-become.PST.3 -NMLZ	COP.3-SENS

When really needing them (the stories), I have become unable to recall them fast. (RC; see §2.7.4 and §15.1 concerning the threatened status of Geshiza orature)

4.10. Conjunctions

Conjunctions connect words, phrases, and clauses (Schahter and Shopen 2007: 45). The heterogeneous word class is divided in Geshiza into coordinating, correlative, subordinating, and contrastive conjunctions, illustrated in Table 4.88. Conjunctions in Geshiza (glossing: CONJ, except when more specific glosses are given) are both freestanding and clitics. Clitics of Geshiza are discussed in §4.13, except three exhibiting conjunction-like functions that receive a dedicated treatment here. In terms of distribution, contrastive conjunctions may be stacked with each other and the coordinative conjunctions in the language. Finally, many conjunctions have secondary roles as discourse markers, a field that remains to be explored in more detail in further Geshiza studies.

Table 4.88. Major conjunctions in Geshiza

Type	Conjunction	Gloss
coordinative	*=ræ*	additive: and, and then…
	=za	alternative: or
correlative	*mɛmɲa ~ mɛmja*	alternative: either-or
subordinative	*tɕʰu*	causal: so
contrastive	*=læ*	contrastive: but
	xaræ	contrastive: but
	tænʂə	contrastive: but
	=væmɲi	contrastive: (only) after

Additive coordinative conjunction and linker =ræ

The most frequent conjunction in Geshiza, the enclitic *=ræ* (glossing: LNK) functions as a coordinating conjunction, joining noun phrases (4.178, 4.179). The enclitic forms a structural unit with the preceding word, phrase, or clause, and in the terminology of Schachten and Shopen (2007: 46) can be called postpositional, in contrast to prepositional conjunctions that form structural units with words, phrases, and clauses that follow the conjunction. The authors further argue that the pre- or postpositional nature of coordinating conjunctions generally correlates with the constituent order of the language. This applies to SP, APV Geshiza as well.

(4.178) […] *tɕʰa-jæɣuə* ***=ræ*** *və-jæɣuə* […]
[…] up-rooftop=**LNK** down-rooftop […]
the upper and lower rooftops

(4.179) *æpa=**ræ*** *æmæ=ɲə*
father=**LNK** mother=PL
(my) father and mother

The conjunction has a wider connective function outside pure coordination, attaching widely to core arguments, adjuncts, phrases, and clauses with no apparent semantic contribution. Such use is optional, illustrated by the fact that many consultants systematically drop at least a part of occurrences of the conjunction when annotating texts. Rhythmic reasons may be postulated as one explaining factor for the distribution of *=ræ* in such contexts, illustrated in (4.180; temporal adjunct) and (4.181; subordinate clause):

(4.180) *oja* *xe* *ɲo=**ræ*** *bjærdærlo=be* *bəmbi=je* *rgəmba* *ŋuə-ræ*
INTERJ DEM.GEN after=**LNK** TOPN=too bonpo.GEN=GEN monastery COP.3-SENS
Yeah, and then, *bjærdærlo* is also a Bön monastery. (RN: ethnographic description)

(4.181) *joŋʤoŋ* *dæ-ʑe* *tɕʰa=**ræ*** *ɕoŋ,* *æ-ŋuə-ræ.*
PL PFV-come.3 when=**LNK** go.NPST.1 Q-COP.3-SENS
Let's go when *joŋʤoŋ* comes, right? (RC)

Alternative correlative conjunction =za
The alternative conjunction *=za* 'or' is used for marking mutually exclusive alternatives (4.182). It has also evolved into a modal discourse enclitic with interrogative value (see §10.1.2; §10.1.4), in which function it occurs more frequently in the source materials.

(4.182) *ʂɲe-ɾja=**za*** *zɣa-ɾja* *tɕʰa* *ɕə.*
seven-CLF.night=**or** ten-CLF.night time go.NPST.3
In seven or ten nights (i.e., days), he will go. (RC)

Correlative conjunction mɛmɲa ~ mɛmja
The coodinative alternative conjunction *mɛmɲa ~ mɛmja* operates in complex clauses, coordinating two alternatives: 'either A or B, if/when not A, then B' (4.183). Due to its role in coordinating complex clauses it is discussed in this context (see §12.2.4). It cannot be used between individual nouns or noun phrases.

(4.183) *mpʰri=wo* *ɲi=ke* *v-dæ-me* *ŋuə-ræ.* ***mɛmja***
snake=ERG 2SG=DAT INV-hit.and.punish-NMLZ:A COP.3-SENS **or**

rtɕʰæ.
bite.NPSt.3
The snake will punish you, or it will bite. (RN: ethnographic description)

Causal conjunction tɕʰu

The conjunction *tɕʰu* encodes a causal relationship between a cause and effect, which can often be translated as 'so' (4.184). The effect clause can be left unstated in casual conversation. Also, similar to the English 'so', as in 'So how much do you need?', *tɕʰu* has acquired a secondary discourse function (4.185). In practice, it is frequently challenging to draw a line between the original and extended discourse use. The glossing CONJ is consequently used in a constant fashion. In discourse function, *tɕʰu* occasionally fuses with the adverb *sʰo* 'more' that is also used as discourse marker (glossing: DM). The resulting form *tɕʰəsʰo* offers a field for further investigation. Also, further analyses of *tɕʰu* will likely reveal its wide range of discourse functions.[53]

The conjunction *tɕʰu* is most commonly placed either clause-initially or clause-finally. A placement following the subject, object, or temporal adjunct is also attested (4.186).

(4.184) *'ɲu=tʰə ri=ræ **tɕʰu** æ-lə gæ-ri' jə.*
2SG.ERG=TOP find.2SG=LNK **CONJ** one-CLF.INDEF IMP-buy.2SG say.3
You are good at earning money (lit. you find), so buy a (car), he says. (RC)

(4.185) *oja **tɕʰu** <koko>=ke æ-slə tɕʰa stoŋpʰrə-wsʰu*
INTERJ **CONJ** older.brother=DAT one-CLF.month on thousand-three

gæ-ko.
IPFV-give.NPST.1PL
So I am giving my cousin three thousand (yuan) every month. (RC; *koko* used in an extended sense)

(4.186) *<ʂə-ji-jyefən> ɲo **tɕʰu** tsʰe ma-ræ=gæ, æ-ŋuə-ræ.*
ten-one-month after **CONJ** vegetable NEG.EXV-SENS=MOD Q-COP.3-SENS
So after November, there are no vegetables (because of the cold weather), right? (RC)

Contrastive conjunctions =læ, xaræ, *and* =væmɲi

Geshiza has two contrastive conjunctions. Also mentioned by Duo'erji (1997: 119), the conjunction *=læ* 'but' connects clauses with a contrastive meaning (4.187):

[53] As a comparative note, an extensive literature exists on the multitude of discourse functions of so in English, see Schiffrin (1987) for a foundational analysis.

(4.187) *ŋa* *tɕæmu* *ɕʰotɕa* *tʰi* *tʰo* *rə-ʑan=**læ*** *ɲi*
1SG moment.ago PN DEM.GEN DEM.LOC PFV.DIR-come.1=**but** 2SG

gæ-rgən-sʰi=bɔ.
IPFV-sleep.2-IFR=MOD
I came a moment ago to *ɕʰotɕa*'s that place (i.e. house), but you were sleeping. (UA: WeChat message; see §2.3.4 for Geshiza house names, such as *ɕʰotɕa*)

Clause-initially, the conjunction *xaræ* often has a contrastive meaning 'but' (4.188). This clause-initial use is relatively rare, and the conjunction is profusely frequently used when moving to a new matter in discourse (4.189). It is likely related to the temporal adverb *xaræ* 'in a moment, after a moment'.

(4.188) ***xaræ*** *<pʰiəutsə>* *ntɕʰue=jɔ.*
but money have.NPST.2SG=Q
But do you have the money? (RC)

(4.189) *tɕæmu* *æpa=wo* *<tiænxua>* *rə-v-tæ=ræ* ***xaræ***
moment.ago father=ERG phone.call.ABS PFV.DIR-INV-bring.PST.3=LNK **CONJ**

'lŋa-mzdo *mbe=ke* *vsəu=mɔ'* *jə* *tɕʰu*
brth.gift carry.INF=DAT seem.NPST.3=MOD say.3 CONJ
A moment ago, (your) father gave (me) a phone call, saying that it seems that people will carry a gift to the newly-born baby. (RC)

Finally, the contrastive conjunction *=væmɲi* follows both noun phrases (4.190) and clauses (4.191). It cannot be interpreted as a postposition, since it follows the postposition *ɲo* 'after' as shown (4.190), and Geshiza allows no stacking of postpositions. In general, the semantic role of *=væmɲi* is to emphasise the temporal succession of events.

(4.190) *xe* *ɲo=**væmɲi**=ræ* *lŋa* *ɕʰi* *næ-ɕʰoŋ.*
DEM.GEN after=**after**=LNK child fetch.INF PFV.DIR-go.PST.1
Then I went to fetch the children. (RN: chronicle)

(4.191) *d-ə-wrələ* *dæ-stoŋ* *tɕʰa=**væmɲi**=ræ*
PREF-NACT-apply.hot.water.INF PFV-finish-PST.1PL when=**after**=LNK

ɣælɔ *wnæ-p^{h}a* *n-ə-t^{h}oŋ.*
chest two-CLF.one.in.pair PREF-NACT-split.into.two.NPST.1PL
(When butchering pigs), after we have stopped applying hot water, we split the chest into two (RN: procedure)

4.11. Ideophones

The following discussion addresses ideophones in Geshiza. Research on Gyalrongic ideophones is still at its initial stages, see e.g. Jacques (2013b) for Japhug and Lai 2017: 218-228) for work that has already been carried out.

Part of the Geshiza lexicon is iconic, motivated by sound symbolism: *æt^{h}jəu* 'sneeze (noun)', *kuku* 'cuckoo (noun)'. In addition, the language exhibits a range of words considered ideophonic, these words forming a distinct word class. In general, Geshiza ideophones (glossing: IDEO) follow the phonological rules of the language. However, the word class can be defined in part by the fact that some its members exhibit idiosyncratic phonotactics not attested elsewhere. First, ideophones include di- and triphthongs generally absent in the language: *au* in *ɣau* 'sound of a barking dog', *uæi* in *quæi* 'squeaking of mature pigs' (see §3.2.2 for Geshiza diphthongs). Second, the ideophone *gle~gle* indicating brightness of colour includes the consonant cluster *gl-* not present elsewhere. The Geshiza tend to think of the ideophones in a rather universal way, rather than as language-dependent linguistic conventions.

Many ideophones exhibit reduplication, a typologically common feature. A non-reduplicated ideophone in the form Σ typically carries the actionsart value of semelfactive action: *bær* 'sound of firing a gun, single shot'. Repeating the ideophone indicates repetition of the action *gaŋ*: 'sound of a drum, single hit', *gaŋ~gaŋ~gaŋ* 'sound of a drum, several hits'. In addition, a syllable may be reduplicated up to four times in the source materials: Σ~Σ (*vu~vu* 'sound of wind or storm'); Σ~Σ~Σ (*qa~qa~qa* 'cawing of a crow'); Σ~Σ~Σ~Σ (*qrəu~qrəu~qrəu~qrəu* 'sound made by hooves of a horse'). In addition, a part of the ideophones include idiosyncratic partial reduplication: *kuaʈʂa~ʈʂa* 'sound of thunder'.

Morphosyntactic properties ideophones
Geshiza ideophones frequently behave syntactically like adverbs, being placed pre-verbally, which indicates the close relationship between the two word classes, illustrated in (4.192):

(4.192) *wlæ* ***vu~vu*** *və-ræ.*
wind **IDEO~RED** LV:do.3-SENS
The wind is blowing hard. (UA)

Rather than establishing ideophones as a subcategory of adverbs, they are classified here as an independent word class with the following morphosyntactic properties. First, ideophones

only modify verbs, contrasting with adverbs that as a word class modify non-nominals. Second, unlike in the case of adverbs, the verbs that ideophones appear with mostly come from a closed group. Ideophones appear most frequently with the verb *v-rə* (V3b) 'to make a sound', the dedicated ideophone verb in Geshiza showing the agent responsible for the produced sound (4.193). It resembles the light verbs (see §4.3.7.1) both functionally and semantically, but unlike light verbs, lacks use as a full verbs in a separate context. Additionally, ideophones commonly use the light verb *və* (V3b ~ V4) 'to do' (4.192) and the verb *jə* (V2b) 'to say' (4.194). The two can be also used metaphorically for non-speaking entities, such as thunder.

(4.193) […] *ŋa* *<jiŋjyæn> =je* *skæ=tʰə=ræ* ***tsʰaŋ~tsʰa~ŋtsʰaŋ***
[…] 1SG silver.dollar=GEN sound=TOP=LNK **IDEO~RED~RED**

dæ-ru […]
PFV-do.1SG […]
I make the 'clink clink clink' sound of silver dollars (by hitting them against each other). (RN: folktale)

(4.194) *rji* *gædəɣi* *dæ-rji* *tɕʰa* ***'oxoxoŋ'*** ***jə-ræ.***
horse early.morning PFV-wake.up when **IDEO** **say.3-SENS**
Horses neigh when waking up in the morning. (MEE)

A part of the ideophones can be reshaped into Σ *=tʰə* Σ pattern (4.195). While a part of such instances clearly correspond to other adverb types, others are only present in the Σ *=tʰə* Σ pattern. To illustrate, while *rtʰən=tʰə rtʰən* 'to work properly and/or diligently' and *pær=tʰə pær* 'firewood cracking violently' are grammatically well-formed. In contrast, e.g. **rtʰən~rtʰən* of the pattern Σ~Σ and **rtʰən* of the pattern Σ are judged ungrammatical. Consequently, Σ *=tʰə* Σ must be established as a fundamental ideophone structure in Geshiza. The pattern has a possible reflex Σ *=æ* Σ in Wobzi Khroskyabs (Lai 2017: 220).

(4.195) *tsələ* ***ɲau=tʰə*** ***ɲau*** *æ-sni* *jə-ræ,* *æ-ŋuə-ræ.*
cat **IDEO=TOP** **IDEO** one-CLF.day say.3-SENS Q-COP.3-SENS
Cats miaow all day long, right? (MEE)

Semantic types of ideophones

On semantic terms, Geshiza ideophones are subdivided into ideophones of 1. inanimate sounds; 2. animal, people, and body sounds; 3. action manner; 4. property intensifiers, illustrated below. The glossing below gives only an approximation of the semantic content of each ideophone, since many ideophones have additional uses to the listed ones as well.

1. *Inanimate sounds (Table 4.90)*

Table 4.90. Examples of Geshiza ideophones: inanimate sounds

Pattern	Ideophone	Gloss	Example verb
Σ	*bær*	firing a gun (single shot)	*jə* 'say'; *v-rə* 'to do'
Σ	*quær*	firing a gun (single shot)	*v-ra* 'to shoot'
Σ	*qra*	firing a gun (single shot)	*jə* 'say'; *v-rə* 'to do'
Σ	*ts^{h}uɔ*	wood breaking (single event)	*v-rə* 'to do'
Σ	*daŋ*	drum (single hit)	*jə* 'say'
Σ	*goŋ*	drum (single hit)	*jə* 'say'
Σ	*sita*	storm	*və* 'do'
Σ~Σ (partial)	*kuara~ra*	thunder (single sound)	*jə* 'say'
Σ~Σ (partial)	*kuaʈʂa~ʈʂa*	thunder (single sound)	*jə* 'say'
Σ~Σ	*ɣoŋ~ɣoŋ*	sound of echo	*jə* 'say'
Σ~Σ	*ɕ^{h}uɔlɔ~ɕ^{h}uɔlɔ*	hissing, higher-freq. tinnitus	*jə* 'say'
Σ~Σ	*wu~wu*	low-frequency tinnitus, sound of a car	*jə* 'say'
Σ~Σ	*vu~vu*	strong wind	*və* 'do'
Σ~Σ	*buæl~buæl*	boiling water	*jə* 'say'; *lə* 'to boil'
Σ~Σ	*quæl~quæl*	boiling water	*jə* 'say'; *lə* 'to boil'
Σ~Σ	*ts^{h}aŋ~ts^{h}aŋ*	coins jingling	*v-rə* 'to do'
Σ~Σ	*ʈʂæn~ʈʂæn*	creaking (e.g. door, chair)	*jə* 'to come, rain'
Σ~Σ	*qɔ~qɔ*	knocking sound	*jə* 'say', *v-rə* 'to do'
Σ~Σ	*ɕ^{h}uɔ~ɕ^{h}uɔ*	light-medium rain	*ʑe* 'to come, rain'
Σ~Σ	*ʑuɔ~ʑuɔ*	medium-heavy rain	*ʑe* 'to come, rain'
Σ~Σ	*ʑuær~ʑuær*	1. very heavy rain; 2. powerful current of water	1. *ʑe* 'to come, rain'; 2. *jə* 'say'
Σ~Σ	*bær~bær*	sound of tractor engine	*jə* 'say'; *v-rə* 'to do'

The patterns Σ for animal sounds is not rigidly fixed. For instance, *quei* represents one semelfactive squeaking sound of a pig and can be further reduplicated or triduplicated, depending on the desired effect.

2. *Animal, people, and body sounds (Table 4.91)*

Table 4.91. Examples of Geshiza ideophones: animal, people, and body sounds

Pattern	Ideophone	Gloss	Example verb
Σ	*bada~da*	many birds starting to fly suddenly at the same time, sound of tractor engines	*jə* 'say', *v-rə* 'to do'
Σ	*oxoxoŋ*	neighing of a horse	*jə* 'say'
Σ	*qui*	squeaking of a young pig	*jə* 'say'
Σ	*quæi*	squeaking of a mature pig	*jə* 'say'
Σ~Σ	*kutu~kutu*	growling stomach	*jə* 'say'
Σ~Σ	*mtɕʰe~mtɕʰe*	sound of pig eating	*v-rə* 'to do'
Σ~Σ	*ntɕʰəu~ntɕʰəu*	sound of pig eating	*v-rə* 'to do'
Σ~Σ	*sʰisʰæn~sʰisʰæn*	hissing of a snake	*v-rə* 'to do'
Σ~Σ	*pʰætʰætʰæ~pʰætʰætʰæ*	wings of a bird	*v-rə* 'to do'
Σ~Σ	*ɣau~ɣau*	barking of a dog	*jə* 'say'
Σ~Σ	*ɲau~ɲau*	meowing of a cat	*jə* 'say'
Σ~Σ	*qa~qa*	cawing of a crow	*jə* 'say'
Σ~Σ	*qrəu~qrəu*	hoofs of a horse	*v-rə* 'to do'
Σ~Σ	*əχə~əχə*	sound of coughing	*jə* 'say'
Σ~Σ	*lqa~lqa*	laughing of a person	*qʰæqʰæ* 'to laugh'

3. *Action and manner (Table 4.92; following page)*

The ideophones of action generally emphasise the speed and intensity of action, as shown in example (4.196). Consequently, while *bjæl* is used to describe a quick jump onto the saddle of a horse, the ideophone cannot be used for the same action, if speed and intensity are lacking.

(4.196) *ækə-stæmba* *lməu* *ræ* *tɕʰa* ***bjæl*** *dæ-v-rə* *næ-ɕʰə.*
PN-PN 3.ERG horse.CS on **IDEO** PFV-INV-do.3 PFV.DIR.go.PST.3
With great haste, *a khu ston pa* jumped on the horse and rode away. (RN: folktale; see also §4.2.6 for the rare compound stem *ræ* of *rji* 'horse')

Table 4.92. Examples of Geshiza ideophones: action

Pattern	Ideophone	Gloss	Example verb
Σ	*ɕʰuæ*	taking something fast with force	*v-rə* 'to do'
Σ	*bjæl*	jumping, getting fast on a horse	*v-rə* 'to do'
Σ	*rtsʰɔ*	performing an action with energy and speed	*ʑua* 'to throw'
Σ	*tɔ*	catching something just when about to fall	*v-rə* 'to do'
Σ(~Σ)	*qlɔ(~qlɔ)*	eating or drinking something completely	*v-rə* 'to do'
Σ~Σ	*lʈʂa~lʈʂa*	tearing objects into pieces	*v-dæ* 'to do'
Σ~Σ	*dja~dja*	walking fast	*ari(-ra)* 'to walk'
Σ~Σ	*tja~tja*	walking fast	*ari(-ra)* 'to walk'
Σ~Σ	*wər~wər*	1. speaking fast;	*v-læ* 'light verb'
		2. passing fast (time);	*ɻje* 'pass (time)'
		3. eating quickly	*ŋgə* 'to eat'

4. *Property intensifiers (Table 4.93)*

Property intensifying ideophones of lack a corresponding sound in the real world. As in example (4.197), they are placed after stative verbs (see §4.3.4.2) to intensify the property described by the stative verb.

Table 4.93. Examples of Geshiza ideophones: property intensifiers

Pattern	Ideophone	Gloss	Example
Σ~Σ	*bær~bær*	colour intensifier	*ɲji bær~bær* 'very red'
Σ~Σ	*doŋ~doŋ*	darkness intensifier (rare)	*a̱næ doŋ~doŋ* 'pitch dark'
Σ~Σ	*gle~gle*	colour intensifier	*ɲa gle~gle* 'jet black'
Σ~Σ	*ku~ku*	darkness intensifier	*a̱na ku~ku* 'pitch dark'
Σ~Σ	*tʰən~tʰən*	black intensifier	*ɲa tʰən~tʰən* 'jet black'
Σ~Σ	*kuær~kuær*	hardness (e.g. food) intensifier	*rgi kuær~kuær* 'very hard'
Σ~Σ	*pær~pær*	cold (substance) intensifier	*rkʰo pær~pær* 'very cold'
Σ~Σ	*sʰən~sʰən*	bit cold (weather) intensifier	*rkʰo sʰən~sʰən* 'a bit cold'

(4.197) *a̱næ* ***kuku*** *tje-ræ* *tɕʰəsʰo* *mə-tɕɔ-ræ*
be.dark **IDEO** become.NPST.3-SENS DM MOD.NEG-be.pleasant.NPST-SENS
(When there is no electricity, the house) becomes pitch dark, so it is unpleasant. (RN: local history)

4.12. Interjections

Interjections are linguistic encodings of spontaneous reactions in a discourse, including, for instance, agreement, disagreement, and attention seeking. Adopting the definition Schachter and Shopen (2007: 57) for their properties as a word class, interjections constitute utterances in themselves and usually lack syntactic connections to any other word.

In Geshiza, interjections (glossing: INTERJ) are an independent closed word class. Interjections branch into core interjections (§4.12.1) and animal calls (§4.12.2), the latter further comprising summons and dispersals. In terms of their syntactic placement, interjections frequently occur clause-initially, but their placement is not limited to this context. Additionally, Geshiza interjections exhibit the cross-linguistic tendency of phonological distinctiveness. Only an interjection can form a word with the syllable types C and V (see §3.3.1 for Geshiza syllable structure): *m:* 'interjection of agreement', *a* 'interjection of interrogation'.

4.12.1. Core interjections

Geshiza interjections consist of three major semantic groups: 1. agreement and disagreement; 2. emotive; and 3. attention seeking and interrogation. Table 4.94 offers an inexhaustive listing of Geshiza core interjections by their type. Examples that follow discuss selected interjections.

Table 4.94. Geshiza core interjections

Type	Interjection	Function
1. Agreement and disagreement	*m:*	agreement
	ə̃ ~ əŋ	agreement
	oja, ɲja	agreement
	wowo, jaja	agreement
	ʔə̃xə̃	disagreement
2. Emotive	*oxo*	surprise
	p^hi	disgust
	wa	enthusiasm and frustration
	$k^hɔ$, zɔ	general emotive
	$q^hɔ$	distressed emotive
	æjo(jo), æjowe	displeasure, dicomfort, pain
	xo	pleasure
3. Attention seeking and interrogation	*a*	interrogative (when not hearing something)
	æɣiɣi	attention seeking by shouting (rarely used)
	u:u:	attention seeking, avoided due to its strong association with *$ɕ^hæɳʤi$* 'demons' (see §2.7.2)
	we	attention seeking, answering phone calls

Interjection of agreement wowo

The interjection *wowo* indicates agreement with an interlocutor (4.198):

(4.198) ***wowo*** *ŋi-ræ,* *ŋi-ræ.*
INTERJ be.all.right-SENS be.all.right-SENS
Yes, that will do. (RC)

Interjection of surprise oxo

The interjection *oxo* expresses surprise of the speaker. For instance, in (4.199), a general had gone to the mountains with his messenger to hunt. Upon sighting a pair of wild horses, he gets both surprised and excited by the prospective catch:

(4.199) *rjə* *mazə* *æ-tɕʰa* *dæ-dʑi=ræ* ***'oxo***
wild.horse mother-son one-CLF.pair PFV-EXV.3=LNK **INTERJ**

e=tʰə=ke *roŋ'* *dæ-jə=ræ* […] *wpʰə=ke* *æ-lə*
DEM=TOP=DAT shoot.1PL PFV-say=LNK […] rump=DAT one.CLF.INDEF

gæ-v-ra-sʰə-mə-ræ=je.
PFV.DIR-INV-hit.3-IFR-EP-SENS=MOD
There was a pair of wild horses: a mother and a foal. 'Wow! Let's shoot them,' (the general) said. […] They shot them to the rump! (RN: folktale)

Interjection of disgust pʰi

The emotive interjection *pʰi* expresses disgust, displeasure, and anger. The speakers perceive it as an ideophonic representation of spitting something out of one's mouth. The interjection is often used when reproaching children, as uttered for a misbehaving child in (4.200, 4.201):

(4.200) ***pʰi*** *mə-ŋi-ræ.*
INTERJ MOD.NEG-be.all.right-SENS
That won't do! (OU)

(4.201) ***pʰi*** *næ-ɕʰin=mɔ.*
INTERJ IMP-go.NPST.2=MOD
Go down(stairs)! (OU)

Emotive-frustrative interjection wa

The interjection *wa* is polysemous by encoding both enthusiasm and frustration. In (4.202), the speaker discusses the third-year birthday of her daughter, which was a very important and happy

moment in her life. In contrast, in (4.203), the speaker had to drive on a very bad road, which made him into a bad mood, reflected using the interjection *wa* in a frustrative function. Reduplicating the interjection indicates more emphasis (4.204):

(4.202) *<ʈʂəu> =ɲə* *dæ-roŋ.* ***wa*** *tʰæn* *dæ-və.*
photo=PL PFV-LV:hit.1PL **INTERJ** irritating PFV-LV:do.3
We took pictures. Wow, it was great. (RN: chronicle; *tʰæn* used in a slang-like meaning with an opposite contextual semantic value)

(4.203) *watɕo* *gæ-ɕʰoŋ.* ***wa*** *tɕæ* *qʰi=lu.*
TOPN PFV.DIR-go.PST.1 **INTERJ** road be.bad.NPST.3=MOD

tʰæn *tʰæn* *tʰæn* *ŋuə-ræ.*
irritating irritating irritating COP.3-SENS
I went (west) to *watɕo.* The road was bad! It was so irritating! (RN: chronicle)

(4.204) ***wa~wa*** *e=tʰo* *vdzi* *wre=lu.*
INTERJ~RED DEM=DEM.LOC people be.many.3=MOD
Wow! There are so many people there! (MEE)

Emotive interjections kʰɔ, qʰɔ, *and* zɔ
Geshiza has three major emotive interjections that are often reduplicated. The interjections *kʰɔ* and *qʰɔ* resembles each other in form and meaning by being markers of emotion in the utterer. *kʰɔ* adds general emotive colouring, being used often in folktales with a reduplicated form (4.205). *qʰɔ* strongly conveys the idea that the speaker is distressed or grieving. In (4.206), the speaker wishes to spend more time with a friend who is about to leave.

(4.205) *oja* *rəwa* *<tɕantɕyn>* *jə-me* *tʰi* *rjəu* ***kʰɔ~kʰɔ***
INTERJ PN general say-NMLZ:P DEM.GEN wife **INTERJ~RED**

ʑpi *vɕæ-ʑæ* *gæ-mdze* *æ-lə* *dæ-dʑi-sʰə-mə-ræ.*
saying speak-NMLZ:P ADJZ-beautiful one-CLF.INDEF PFV-EXV.3-IFR-EP-SENS
The wife of the one called General *rəwa*, as the saying goes, was very beautiful. (RN: folktale)

(4.206) *vdʑæ* ***qʰɔ*** *sʰo* *æ-ntsʰsæ* *næ-ndzon.*
friend **INTERJ** more one-CLF.little.bit IMP-stay.2
(My) friend, stay a bit more (before leaving). (MEE)

Finally, the emotive interjection *zɔ* resembles *kʰɔ* and the two occasionally co-occur (4.207). It remains unclear whether is historically connected with the discourse intensifier *=zɔ* (see §13.5.2), but this is certainly possible.

(4.207) *ʐ̩pi* *vɕæ-ʐ̩æ* ***zɔ~zɔ~zɔ*** *kʰɔ~kʰɔ*
saying speak.NMLZ:P **INTERJ~RED~RED** INTERJ~RED

kʰrə~kʰrə-stoŋ~stoŋ *dʐ̩i-mə-ræ,* *sme* *ŋɖʐ̩aŋɖʐ̩a*
RED~ten.thousand-RED~thousand EXV.3-EP-SENS woman similar

zɔ~zɔ
INTERJ~RED
To use a saying, there were thousands of women similar (to Princess Wencheng in appearance). (RN: folktale)

Attention seeking interjection we
The attention seeking interjection *wɛ* has been borrowed from the Chinese *wèi* 喂. Like in its source, it is commonly used to answer the phone. In (4.208), the caller likely asks where the addressee is:

(4.208) ***we.*** […]
INTERJ […]
Hello? [Where are you?] (speaker A)

bəqʰə.
TOPN
(I am) in Buke. (OU) (speaker B)

4.12.2. Summons and dispersals

As discussed in the introduction, in addition to interjections proper, Geshiza has deictic interjections to call domestic animals to come towards the speaker, or conversely, to urge them to move away. Adopting the terminology of Aikhenvald (2010: 318-319), the former of these animal calls are called ‘summons’ and the latter ‘dispersals’, summarised in Table 4.95 on the following page. The summons consist of reduplicated syllables spoken in a soft tone, but the amount of repetitions may vary slightly. They contrast with the short dispersals uttered with a rash tone.

Table 4.95. Geshiza summons and dispersals for animals

Animal	Summons	Dispersals
rji 'horse'	*oɕʰo~oɕʰo*	*tɕʰo*
rgo 'cow'	*ænoŋ jo~jo~jo~jo*	*tɕʰo*
tsələ 'cat'	*lu~lu~lu~lu~lu*	*ɕʰəi*
kəta 'dog'	*tsa~tsa~tsa~tsa~tsa*	*ɕʰəi*
va 'pig'	*sə~sə~sə~sə~sə*	*ɕʰəi*
ji 'sheep'	*qʰæ~qʰæ~qʰæ~qʰæ~qʰæ*	*ɕʰəi*
tsʰæ 'goat'	*mɛi~mɛi~mɛi~mɛi~mɛi*	*ɕʰəi*
wərja 'chicken'	*ku~ku~ku~ku~ku*	*ɕʰəi*

At least, the summon for sheep, goat, and chicken are onomatopoetically motivated, while the summon for cat is likely borrowed from a Tibetan lect, possibly from Amdo Tibetan *lo'u* 'cat'. Interjection-like animal calls are borrowed are frequently borrowed and thus spread with ease to new languages (Aikhenvald 2010: 388). Specific summons exist only for animals that play a significant role in their everyday lives. Since yak herding is not practiced by the Geshiza, the language lacks specialised native summon for the yak and its hybrid forms.

Unlike the summons that differ for every domestic animal, the two existing chasing sounds divide the animals into two groups. The chasing sound *tɕʰo* is used for large animals, namely horses and cows, while the generic *ɕʰəi* is applied to all other smaller domestic animals.

The animal calls function as one-word imperatives in human-to-animal communication. In the agrarian Geshiza society, the calls serve an important everyday function. Since the animal in question constitutes the main audience and sometimes the sole audience of the utterance, these interjections serve as the unique manifestation of exclusively animal-directed speech.

4.13. Enclitics

The Geshiza clitic system comprises two main categories, namely noun phrase enclitics (§4.13.1) and clause-level enclitics (§4.13.2). They play an important role in Geshiza grammar and are discussed in detail mainly in their functional contexts. Consequently, this sketch concentrates on identifying the main categories and offering a brief description of their morphosyntactic behaviour. In addition, three enclitics have conjunction-like functions and they are consequently discussed in that context (see §4.10).

4.13.1. Noun phrase enclitics

Noun phrase adjuncts consist of enclitics that adjoin to a noun phrase, rather than individual nouns inside the phrase. The noun phrase adjuncts generally follow a rigid order in a noun phrase, having four distinct loci illustrated in Table 4.96 on the following page.

Table 4.96. Major Geshiza noun phrase enclitics

0 core NP	+1 number	+3 case	+4 intensification
	=næ	unmarked	*=be*
	‘dual’ (§5.2.3)	‘absolutive’ (§5.3.1)	‘inclusive’ (§13.5.1)
	=ɲə	*=wo*	*=zɔ*
	‘plural’ (§5.2.4)	‘ergative’ (§5.3.2)	‘restrictive’ (§13.5.2)
	=(n)ts^{h}əu	*=je*	*=m(d)e*
	‘associative’ (§5.2.5)	‘genitive’ (§5.3.3)	‘limitative’ (§13.5.3)
		=ke	
		‘dative’ (§5.3.4)	
		=tɕe	
		‘instrumental’ (§5.3.5)	
		=ŋɛtɕe	
		‘approximative. locative’ (§5.3.6)	
		=nɔ	
		‘locative’ (§5.3.7)	
		=lɔ	
		‘terminative’ (§5.3.8)	
		=p^{h}a	
		‘comitative’ (§5.3.9)	
		=bɔmɲa ~ =bɔmja	
		‘comparative’ (§5.3.10)	

Every NP adjunct in the table includes an internal reference to a section of this grammar for more detailed information. As can be seen, they commonly serve either grammatical or a discourse function in Geshiza.

The adjuncts follow a core noun phrase consisting minimally of a head noun with possible modifiers, e.g. an adjective. Even though examples, such as (4.209), can be constructed and judged grammatical, such maximal forms seldom appear in normal everyday conversation. Consequently, the posited ordering of the adjuncts is an abstraction. Section §5.1 discusses the order of constituents in Geshiza noun phrases in more detail.

(4.209) *e* *sme=ɲə=tʰə=ke=be*
DEM woman=PL=DEM=DAT=too
to approximately these women too (constructed by the author and accepted)

Information structure enclitics
Additionally, noun phrase adjuncts include four major information structure enclitics: *=tʰə* 'topic' (see §13.3.1); *=nɔ* 'contrastive topic' (see §13.3.2); *=læ* 'focus' (see §13.4.1); and *=ɕʰə* 'contrastive focus' (see §13.4.2). As discussed in more detail in chapter 13, their placement varies somewhat, depending on the desired scope. In all scenarios, however, they must be placed after slot +1 that is dedicated for number and associativity marking.

Approximative enclitic =kʰa
The approximative enclitic *=kʰa* (glossing: about) indicates non-exactness: *gəɕʰo* '(in the) evening', *gəɕʰo=kʰa* 'approximately in the evening, when the sky is getting a bit dark'. For instance, in (4.210), the speaker wishes to convey that his son was young, but not that young anymore, without resorting into mentioning any exact age.

(4.210) *oja* *xə* *tɕʰa=ræ* *ŋa=ntsʰe* *dærdʑe=tʰə* *dəu~dəu=**kʰa***
INTERJ DEM time=LNK 1=ASS.GEN PN=TOP RED.ADJZ~small=**about**

dæ-ŋuə.
PFV-COP.3
At that time, our *dærdʑe* was quite young. (RN: personal history)

Inside the noun phrase, the approximative enclitic shows some variation in its placement, illustrated in the example pair (4.211, 4.212):

(4.211) *'ɲi* *kʰɔ* *kəŋkən* ***sʰə=ke=kʰa*** *stɕæn'* *jə.*
2SG INTERJ at.all **who=DAT=about** fear.NPST.2 say.3
'Who on earth are you afraid?' he says (i.e. asks). (RN: folktale)

(4.212) *dæ-ɕʰin* *zda=za,* *ŋui.*
PFV-go.PST.2 AUX.EXP.PERF=Q before
Have you ever been (to Dangling)? (speaker A)

tsʰætɕʰə=kʰa=lɔ *dæ-ɕʰoŋ* *zda=bɔ.*
hot.spring=about=TERM PFV-go.PST.1 AUX.EXP.PERF=MOD
I have been approximately up to the hot spring. (speaker B)

Finally, while the approximative enclitic *=kʰa* primarily adjoins noun phrases, it can also be hosted by adverbs, as shown in example (4.213) where it emphasises the non-exactness of time. It is described among the noun phrase enclitics in this grammar due to its primary function.

(4.213) ***kotsə=kʰa*** *mdzo-ɲo* *bændi-næmkʰa* *tʰo* *ɕoŋ=bɔ.*
after.some.time=about noon-after PN-PN DEM.LOC go.NPST.1=MOD
After some time, we will go to the place of *bændi-næmkʰa* (RN: chronicle).

4.13.2. Clause-level enclitics

Clause clause-level enclitics typically adjoin the verb and contain two categories: modal discourse enclitics and adverbialisers. The two categories are mutually exclusive. Adverbial clauses and adverbialisers are discussed in §12.3 while modal discourse enclitics receive a dedicated analysis in §8.6.5.

Modal discourse enclitics

Modal discourse enclitics in Geshiza have a range whole the whole clause. Often such enclitics carry illocutionary force, e.g. assertion and emotive colouring. Table 4.97 on the following page illustrates the main identified enclitics. As in example (4.214), Their placement is fixed at clause final position concluding an utterance, which commonly equals the post-verbal position (see §13.7 for right dislocation placed after the enclitics), When a verb is lacking, adverbs may also host the modal discourse enclitics, such as in example (4.215). This proves that they should not be interpreted simply as verb adjuncts.

(4.214) *ɕʰiɕʰi* *gæ-de=**bɔ***.
slowly IMP-do.2SG=**MOD**
Take it easy! (lit. Do it slowly!) (UA)

(4.215) *ɕʰiɕʰi=**bɔ***.
slowly=**MOD**
Take it easy! (lit. Slowly!) (UA)

Table 4.97. Geshiza clause-level enclitics

Category	+1	+2
Interrogative	*=za* standard interrogative (§10.1.2)	*=goŋ* auto-interrogative (§10.1.7)
	=jɔ interrogative (§10.1.2)	
Epistemic certainty	*=ba* probabilitative (§8.6.5)	
	=mdɔ uncertainty (§8.6.5)	
Assertion	*=bɔ* assertive (§8.6.5)	
	=mɔ assertive (§8.6.5)	
	=gæ assertive (§8.6.5)	
	=m(d)e assertive (§8.6.5)	
	=mnɲoŋ assertive (§8.6.5)	
Exclamative	*=je* aggressive exclamative (§8.6.5)	
	=lu emotive exclamative (§8.6.5)	

The auto-interrogative enclitic *=goŋ* shows distributional properties that differ from the other modal discourse enclitics. All the other modal discourse enclitics are paradigmatically exclusive, with the result that only one may be used at a given time. On the other hand, *=goŋ* may be stacked with the interrogative enclitic *=za*: *=za=goŋ*.

Adverbialisers

In addition to non-dedicated adverbialisers, such as the use of case enclitics and postpositions, Geshiza has four dedicated adverbialisers listed in (4.216) with their adverbialising function.

(4.216)

=ʑær	concurrent action
=zə	general conditionals
=navzoŋ	hypothetical and counterfactual conditionals
=na	universal concessive conditionals

4.14. Affixes

Geshiza affixes contain both inflectional and derivative suffixes and prefixes, infixes being absent in the language. An exhaustive listing of affixes can be found in *Appendix V: List of affixes, clitics, and process formatives* at the end of the grammar. Most Geshiza affixes pertain to the domain of verbal morphology, Verbal affixes are primarily discussed sections §4.3 (overview of inflectional morphology) and §6.2 (derivation) and chapters *Orientation and tense-aspect-mood* (8*); Evidentiality and engagement* (9); *Non-declaratives: questions and commands* (10); *Negation* (11); and *Clause combining and complex clauses* (12). In turn, unproductive nominal affixes are discussed in §4.2.5.

4.15. Process formatives

In addition to clitics and affixes, process formatives with grammatical functions can be identified in Geshiza. In contrast to affixes, they are non-concatenative and lack an overt associated form adjoining a lexical item. Process formatives in Geshiza concern reduplication (4.217; see §4.3.5.5); aspiration alternation (4.218; see §4.3.5.3); voicing alternation (4.219; see §6.2.3.5); and conversion (4.220; see §6.2.4). As with affixes, an exhaustive listing of Geshiza process formatives is available in *Appendix V: Affixes. clitics, and process formatives* at the end of the grammar.at the end of the work.

(4.217) Reduplication:

dæ-ʑan.	>	*dæ-ʑə~ʑan.*
PFV-come.1		PFV-RED~come.1
I/we came.		We came.

(4.218) Aspiration alternation:

t^{h}u.	>	*dæ-tu.*
drink.NPST.1SG		PFV-drink.PST.1SG
I will drink.		I drank.

(4.219) Voicing alternation:

zə-tsa-ræ.	>	*zə-dza-ræ.*
PROSP-drop.NPST.3-SENS		PROSP-fall.ANTICAUS.3-SENS
S/he/it is about to drop it.		S/he/it/they is/are about to fall.

(4.220) Conversion:

ŋk^{h}uma

key (N) > to lock with a key (V)

4.16. Summary

The present chapter offered a survey of major world classes of Geshiza with their major non-derivational morphological properties. Geshiza word classes comprise nouns, verbs, adjectives, pro-forms, numerals, classifiers, postpositions, adverbs, conjunctions, ideophones, and interjections. In addition, the language includes clitics; affixes (both prefixes and suffixes); and process formatives. Of all the word classes, verbs are by farm morphologically most complex, while the rest are morphologically relatively poor. Also, since nominal morphology in Geshiza generally pertains to the level of noun phrase, rather than individual nouns, it is treated separately in the following chapter on noun phrase syntax.

CHAPTER FIVE
Noun phrase syntax

This chapter is dedicated to Geshiza noun phrase syntax. Many grammatical categories, such as case and number, are marked enclitically at noun phrase level, justifying their treatment in the phrasal context. The chapter mainly focuses on the structure of Geshiza noun phrase (§5.1); number and associativity marking (§5.2); case marking (§5.3); discourse marking (§5.4); modification (§5.5); and apposition (§5.6). Relative clauses are discussed in more detail in §12.5. Noun phrase coordination is addressed in §5.7. The chapter ends with a summary (§5.8).

5.1. Structure of the noun phrase

The core NP template takes the canonical form (5.1) in Geshiza. Minimally speaking, a single independently used head noun written in bold in the template, e.g. *æmɲi* 'grandfather,' suffices to form a grammatically correct noun phrase in a proper discourse context. For instance, a grandchild calling her grandmother, with the meaning 'Grandfather, where are you?'

(5.1) POSSESSOR + DEM + **HEAD NOUN** + ADJ + NUM/ASS + CLF + DEM + CASE + DISCOURSE
§5.5.1 §4.5.2 §4.2 §4.4 §5.2 §4.7 §4.5.2 §5.3 ENCL. §5.4

Trans-Himalayan languages are known for their rigidly-structured non-changeable noun phrase structure (Doley and Post 2012; Zhang 2014: 885). Geshiza reflects this tendency by having the order of NP constituents fixed with limited variation. The following variational patterns are nevertheless attested.

First, information structure enclitics, such as the topicaliser =*tʰə* occur in various loci that depends on the range of topicalisation, and they are thus omitted from the template above. Addressing the relevant issues, section §13.3 is dedicated for discussing information structure in Geshiza.

Second, attributive adjectives may precede or follow their nominal head. Pre-nominal placement, however, is generally attested only in elicitation. The speaker in (5.2, following page) initially opts for prenominal placement, immediately rephrasing the adjective into a postnominal location. This behaviour could be dismissed merely as speaker error, yet it is also briefly mentioned by Duo'erji (1997: 113), a native speaker of Eastern Geshiza. Consequently, prenominal placement of adjectives is a secondary feature in the language judged grammatical, yet it is giving way to postnominal placement, the dominating pattern.

(5.2) *ŋæ=ntsʰe* *æpa=wo* *jæɣuə* *rə-ɕʰə=ræ* *mtsi-ʑo= tʰə*
1=ASS.GEN father=ERG rooftop PFV.DIR-go.PST.3=LNK to.polish-stone=TOP

gæ-tɕʰæ ***rgævæ,*** ***rgævæ*** ***gæ-tɕʰæ*** *æ-rgəu=tʰə*
ADJZ-big **stone** **stone** **ADJZ-big** one-CLF.general=TOP

wə-ʑwa=ræ *ɣæ=ke* *wɔ-zi=ræ* *ɣæ-qrə*
PFV.DIR-throw.3=LNK door=DAT PFV.DIR-hit.target.3=LNK door-pivot.hinges

dɔ-ɕʰə-sʰi *ŋuə-ræ.*
PFV-broke.PST.3-NMLZ COP.3-SENS
Our father went to the rooftop and he threw a polishing stone, a large stone, a large stone down (to the eastern direction). It hit and broke the pivot hinges of the door. (RN: local history)

Also, relative modifiers of a noun phrase show variation in their placement. A relative modifier may be placed either before or after its nominal head. The variation is illustrated in (5.3) and (5.4):

(5.3) *e* *dæ-ʑe-sʰi* *sme=tʰə*
DEM PFV-come.3-NMLZ:S woman=TOP
that woman who came (MEE)

(5.4) *e* *sme* *dæ-ʑe-sʰi=tʰə*
DEM woman PFV-come.3-NMLZ:S=TOP
that woman who came (MEE)

Maximally long noun phrases with all elements included in the abstracted noun phrase template do not occur in the source materials. The longest non-elicited noun phrases contain five to seven constituents (5.5, 5.6). The reason for this lies in pragmatic, rather than a grammatical restriction: Geshiza speakers prefer to omit constituents that are obvious from the discourse context. Longer noun phrases can be formed through elicitation, though excessive length often makes them sound highly unnatural for the Geshiza.

(5.5) *e* *lala=tʰə=ke=be* […]
DEM maternal.aunt=TOP=DAT=TOO […]
…to that middle-aged woman too (RN: chronicle)

(5.6) *ɲi=nts^{h}e=je* *sq^{h}e* *gæ-tɕ^{h}æ* *æ-vtɕa* *t^{h}u=læ* […]
2=ASS.GEN=GEN sister ADJZ-big ONE-CLF.pair DEM.ERG=FOC […]
Two (lit. one pair) of your older sisters… (RN: folktale)

Constituent dependency

NP constituents exist in hierarchical dependencies. To begin with, while a classifier necessarily requires a numeral host (5.7, 5.8), the opposite is not true. Numerals make an appearance without classifiers in Geshiza (5.9):

(5.7) *mdo=t^{h}ə* *<tiæntʂutɕəu>* *<tɕəut^{h}an>* ***æ-rgəu*** *də-me*
TOPN=TOP Catholicism cathedral **one-CLF.general** EXV-NMLZ:S

ŋuə-ræ
COP.3-SENS
In Kangding, there is a Catholic cathedral. (RN: local history)

(5.8) **mdo=t^{h}ə* *<tiæntʂutɕəu>* *<tɕəut^{h}an>* ***rgəu*** *də-me*
TOPN=TOP Catholicism cathedral **CLF.general** EXV-NMLZ:S

ŋuə-ræ.
COP.3-SENS
Intended meaning: In Kangding, there is a Catholic cathedral. (REJ; see 5.7)

(5.9) *væ-zi* ***wne*** *rə-q^{h}əu.*
pig.CS-DIM **two** PFV.DIR-take.with.PST.1SG
I took with me (back home) two piglets. (RN; chronicle)

Also, the number enclitics *=næ* 'dual' and *=ɲə* 'plural' (see §5.2) do not surface together with classifiers and numerals when those modify a head noun. (5.10, 5.11). Exceptionally, the dual marker and the numeral *wne* 'two' co-occur: *lŋa wne=næ* (child two=DU) 'two children'.

(5.10) *sme* ***ws^{h}u-ɣi*** *dʐi-ræ.*
woman **three-CLF.person** EXV.3-SENS
There are three women. (RN: chronicle)

(5.11) **sme* ***ws^{h}u-ɣi=ɲə*** *dʐi-ræ.*
woman **three-CLF.person=PL** EXV.3-SENS
Intended meaning: There are three women. (REJ; see 5.10)

5.2. Number and associativity marking

This section offers an overview of the noun phrase number and associativity system (§5.2.1), followed by analyses concerning unmarked (§5.2.2); dual (§5.2.3); and plural (§5.2.4) number. At the end, the related grammatical category of associativity is discussed (§5.2.5).

5.2.1. Overview

Geshiza noun phrase template includes a slot for expressing number and associativity. Reasons for keeping the two related notions separate are discussed in subsection §5.2.5.

In Geshiza, number and associativity marking is an optional characteristic of a noun phrase, not only of individual nouns. For instance, if a noun phrase includes an adjective attribute, the marking necessarily attached to the end of the phrase (5.12, 5.13). Double marking of number or associativity does not occur in the language (5.14):

(5.12) *vdzi* *gæ-tɕʰæ=ɲə*
person ADJZ-big=**PL**
the big (or old) people

(5.13) **vdzi=ɲə* *gæ-tɕʰæ*
person=**PL** ADJZ-big
Intended meaning: the big (or old) people (REJ; see 5.12)

(5.14) **vdzi=ɲə* *gæ-tɕʰæ=ɲə*
person=**PL** ADJZ-big=**PL**
Intended meaning: the big (or old) people (REJ; see 5.12)

In addition to being unspecified number, Geshiza noun phrases can host dual (*=næ*) and plural (*=ɲə*) enclitics for explicit number marking. Systems with these three values have been reported for languages in the region, e.g. Lisu (Chirkova 2008) of the proposed Qiangic branch. In a far more limited fashion, they can also be marked with the enclitic *=(n)tsʰəu* for associativity, which in the strict sense a category distinct from plurality. As shown in (5.15, 5.16), in rapid everyday speech, the number enclitics *=næ* and *=ɲə* fuse with the ergative and genitive case clitics of (see §5.3) following the vowel fusion rules (see §3.4.3), although the fusion is not compulsory:

(5.15) *væ-mæ=næ=wo* > *væ-mæ=nəu*
father.CS-mother=**DU=ERG** father.CS-mother=**DU.ERG**
father and mother (did somethihg)

(5.16) *sme=ɲə=je* > *sme=ɲi*
woman=**PL**=**GEN** woman=**PL.GEN**
of the women

The bound between the host and number-associative enclitics is not strong enough to merit the enclitics' treatment as number suffixes. To illustrate, in (5.17), the plural enclitic *=ɲə* is detached from its host when the speaker needs time to think what to say:

(5.17) *o* *sert^{h}a* *o=ɲə=ke* *d-ə-ɕə.*
HES TOPN HES=**PL**=DAT PREF-NACT-go.NPST.3
People go to (pilgrimage to monasteries) in Seda. (RN: ethnographic description)

Overlapping range of the number enclitics

Figure 5.1 below illustrates Geshiza number marking in the nominal system by means of binary divisions. The numerical range of referents is two for the dual, and two or more for the plural. With an unmarked noun phrase, it is unspecified and encompasses any number of referents, e.g. one (singular) or more. Consequently, the ranges of the dual and plural overlap in Geshiza, both being mutually non-exclusive instances of numerical specificity, since in the case of two referents, the speaker may decide between a dual or plural encoding. This goes against the expected. Typologically, the presence of a dual in a number system commonly restricts the functional scope of the plural to three or more entities vis-à-vis a number system with only singular and plural where the plural refers to more than one real world entity (Corbett: 2000: 19-20).

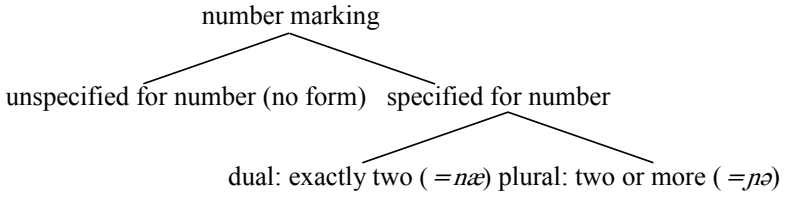


Figure 5.1. Expression of number in Geshiza noun phrases

The more restricted semantics of the dual are illustrated in the following examples. First, in (5.18, following page), the speaker uses the plural in preference over the dual, yet the referent is clearly an entity consisting of exactly two parts, specified by the additional use of the numeral two. In (5.19, following page), the speaker has exactly two children, to whom she refers with both the dual and plural. In sum, the dual is a special number category specified for number and functionally more marked than the plural, which can be used as its alternative.

(5.18) *xe* *ɲo=væmɲi=ræ* *ɣæ=je* ***zgæjæl=ɲə*** ***wne*** *dæ-rəu.*
DEM.GEN after=CONJ=LNK door=GEN **curtain=PL** **two** PFV-sew.1SG
Then I sewed two curtains for a door. (RN: chronicle)

(5.19) ***lŋa=næ*** *braŋgu* *dzi* *ŋgə* *dæ-ɕu.*
child=DU TOPN food eat.INF PFV.take.NPST.1SG

ætɕʰəroro ***lŋa=ɲu*** *ləu* *smær-me=tʰə* *gæ-ru.*
whatever **child=PL.ERG** which like-NMLZ:P=TOP PFV-buy.1SG
I took (my) two children to eat in Danba County Town I took (our) two children to the County Town to eat. I bought everything that our children like. (RN: chronicle)

5.2.2. Unmarked

Number is not an obligatory grammatical category in Geshiza where noun phrases frequently appear without number marking. When other formal hints concerning number, e.g. an indefinite classifier (see §4.7.1) narrowing the scope to one referential entity, are also absent, lack of number marking means that a noun phrase is unspecified for number, its interpretation of number consequently depending on discourse contexts and lexical semantics. Conversely, the presence of either dual or plural marking on a noun phrase makes it specific in the discourse context.

Nouns unspecified for number may be semantically singular, dual, or plural. For instance, a proper name, such a toponym, with no number marking must generally refer to one particular referential entity only (5.20). In the same example, *lŋa* 'child' refers to the two children of the family, having thus semantically a dual interpretation in the discourse context. The speaker is a Geshiza grandmother explaining her tasks and takes it for granted that the addressee (i.e. the author) knows she has two grandchildren to take care of, there being no need for explicit number marking. Finally, a common noun with no number marking often results in a nonreferential interpretation, which may be thought to be semantically plural, as in (5.21).

(5.20) ***<sæntʂaxo>*** ***lŋa*** *ɕʰu* *vɕe.*
TOPN **children** take.NPST.1SG AUX.must.NPST
I need to take the children to Sanchaihe (a district in Danba County Town). (RN: procedure; see §2.7.5 concerning temporary dislocation in which the grandparents move to Danba County Town with their grandchildren.)

(5.21) *ʑana* *tɕʰu* ***<tʂʰetsə>=ræ*** *xaræ* ***<fitɕi>*** *dæ-ma-sʰi,* *æ-ŋuə-ræ.*
past CONJ **car**=LNK CONJ **airplane** PFV-NEG.EXV-SENS Q-COP.3-SENS
In the past, there were no cars and airplanes, right? (RN: folktale)

5.2.3. Dual *=næ*

Dual number referring to exactly two entities is coded by the suffix *=næ* (glossing: DU), illustrated in examples (5.22-5.24). The enclitic cooccurs with the three core cases of absolutive, ergative, and genitive, resulting in fusional forms from regular vowel fusion: *=næ* (DU.ABS), *=nəu* (DU.ERG), and *=nɛ* (DU.GEN). The suffix is etymologically related to the numeral *wne* 'two' without the historical prefix ***wne*** < PTH ***g**-ni-s 'two' and with a different vowel coda. Interestingly, this is identical to Japhug where the dual marker *ni* lacks a preinitial that is present in *ʁnɯz* < *qnis 'two', both languages thus exemplifying a well-attested grammaticalisation pathway TWO > DUAL (Jacques 2016: 2).

(5.22) ***lŋa=næ*** *braŋgu* *dzi* *ŋgə* *dæ-ɕu.*
child=DU TOPN food eat.INF PFV.take.PST.1SG
I took (my) two children to eat in Danba County Town. (RN: chronicle)

(5.23) *'æpa* *æmæ* *næ-ndʑæl=mɔ'* *jə-ræ,*
father mother PREF-thank.you=MOD say.3-SENS

lŋa ***wne=nəu,*** ***wne=nəu.***
child **two=DU.ERG** **two=DU.ERG**
'Thank you, father and mother,' the two said, the two (children). (RN: chronicle)

(5.24) *lmo=t^{h}ə* *ŋui* ***ts^{h}oŋopən=nɛ*** *nt^{h}u=t^{h}ə=ke* *æ-q^{h}a*
3.ERG=TOP first **trader=DU.GEN** meat=TOP=DAT one-CLF.stick

dæ-n-tæpæ=ræ *dæ-ŋgə-s^{h}ə-mə-ræ.*
PFV-AB-take.out.PST.3=LNK PFV-eat.3-IFR-EP-SENS
He (*a khu ston pa*) took one piece of the two traders' meat and ate it. (RN: folktale)

Dual marking is optional in Geshiza. The language lacks 'duale tantum' words requiring the dual to be grammatically correct, cf. e.g. the Hebrew duale tantum מספרים *misparáyim* 'scissors'.

Geshiza nounoids (see §4.2.1) exhibiting lower level of nounhood are incompatible with dual marking, even though they may host the plural enclitic *=ɲə*. Also, the dual enclitic does not preclude the use of the numeral *wne* 'two' at the same phrase, a tautological co-occurrence that is highly common in Geshiza (5.25, see also 5.23):

(5.25) ***wne=næ*** *gæ-mɛ-ʑe-s^{h}ə-mə-ræ* *tɕ^{h}u* *<tɕantɕyn>*
two=DU IPFV-ASP.NEG-come.3-IFR-EP-SENS CONJ general

æ-vtɕa=t^{h}ə.
one-CLF.pair=TOP
The two did not come (back home), the pair of generals. (RN: folktale)

5.2.4. Plural *=ɲə*

Explicit plurality in Geshiza is indicated by the enclitic *=ɲə* (glossing: PL), as shown in examples (5.26-5.28). Like the dual enclitic, it fuses with the two formally marked core cases: *=ɲu* (pl.ERG) and *=ɲi* (PL.GEN).

(5.26) *t^{h}ævære* ***lŋa=ɲə*** *braŋgu* *dʑi-ræ.* [...]
recently **children=PL** TOPN EXV.3-SENS [...]
Recently, (our) children are in Danba County Town... (RC)

(5.27) […] ***ækə=ɲu*** *ntɕ^{h}æn* *dæ-və.*
[…] **paternal.uncle=PL.ERG** Tibetan.drama PFV-LV:do.3
…The monks played Tibetan drama. (RN: ethnographic description; *ækə* 'paternal uncle' polite way to refer to monks)

(5.28) *gəɕ^{h}o* ***ŋæ=ɲi*** *vdʑæ=wo* *<tiænxua>* *dæ-nʑæ-s^{h}i.*
evening **1=PL.GEN** friend=ERG phone.call PFV-bring.3-IFR
In the evening, our friend called us. (RN: chronicle)

The Geshiza plural is generally additive, i.e. the referents form a homogenous group: *sme* 'woman', *sme=ɲə* 'women'. Plural also appears in contexts featuring less prototypical plurality. As for one, the plural enclitic *=ɲə* is seen with toponyms that typically avoid number marking in Geshiza, as in (5.29). The function of plural marking in such contexts remains unclear and requires further research.

(5.29) ***stæwə=ɲə=ke=be*** *we* *t^{h}o* *g-ə-ɕoŋ.*
TOPN=PL=DAT=too house build.INF PREF-NACT-go.NPST.1
We used to go to Daofu County to build houses as well. (RN: personal history)

Relative semantic freedom of plural number marking:
Geshiza plural enclitic *=ɲə* is highly versatile. It can be attached to both animate and inanimate nouns: *leska-pa=ɲə* 'manual laborers', *dzi=ɲə* 'foods, dishes'. Its distribution also covers both countable and uncountable nouns: *vdzi=ɲə* 'people, men', *ɲu=ɲə* 'oil'. The number marking clitics can also be attached to abstract nouns when the plurality of the referent is emphasised: *vɕæpa=ɲə* 'talk, speaking (e.g. with several topics discussed)'.

Deviating cases

The Geshiza plural enclitic *=ɲə* also attaches to words whose referent in the real world is not plural, forming quasi-plurals semantically different from the use of additive plural marker. In these instances, it is proposed here that the plural marking indicates plural action of the verb, the non-plural referent being conceptualised as an instrument for the action. In (5.30), the speaker has only one sheller machine, but he used the same machine for a long time to shell the corn. He possibly encodes this repeated action with plural marking on the object of the verb. In all, the non-prototypical use of the plural enclitic in Geshiza requires further investigation and what is suggested herein must be seen merely as an initial hypothesis.

(5.30) *xe* *ɲo* *ŋa* *jæɣuə* *rə-ɕ^{h}oŋ.* ***ŋk^{h}ærlo=ɲə***
DEM.GEN after 1SG rooftop PFV.DIP-go.PST.1 **sheller=PL**

dæ-ləu.
PFV-LV:release.1SG
Then I went to the rooftop. I used the sheller. (RN: chronicle)

5.2.5. Associative *=(n)ts^{h}əu*

Geshiza grammar also includes a dedicated enclitic for expressing associativity (glossing: ASS): 'X and those associated with it'. Associatives, also known as associative plurals in the literature (Daniel and Moravcsik 2013; Velupillai 2012: 164), are not always considered a subdivision of the grammatical category of number. In a typological study, Corbett (2000: 101-111) argues for a categorical distinction between number and associativity. The author shows how in some languages, such as Central Alaskan Yup'ik , the number and associative morphemes are realised separately and may thus cooccur. Against this backdrop, while number and associativity markers occur paradigmatically in Geshiza, they are considered manifestations of distinct, yet related grammatical categories in this grammar. This interpretation reflects that of evidentiality and engagement (see chapter 9), two clearly related, yet distinct grammatical categories whose markers exist in a paradigmatic relationship in Geshiza.

The Geshiza associative enclitic *=(n)ts^{h}əu* has two allomorphs whose distribution is determined by the word class: *=nts^{h}əu* for pro-forms and *=ts^{h}əu* for nouns. Of the three core cases of absolutive, ergative, and genitive, the associative enclitic distinguishes only a joined absolutive-ergative (*=nts^{h}əu*, *=ts^{h}əu*) and the genitive (*=nts^{h}e*, *=ts^{h}e*) forms. The enclitic refers to a human focal referent and its associates (an exception discussed below). Therefore, it designates groups, such as household units.

Associative and the plural

Two properties established by Daniel and Moravcsik (2013) distinguish the associative from the general plural marked by the suffix *=ɲə*. First, the associative is distinguished by heterogeneity: a set it refers to is not homogeneous in its composition, unlike in the case of the general plural, also called additive. Second, the associative refers to close-knit groups of individuals, not to sets lacking internal cohesion. Both properties are illustrated in (5.31). *rdʑælpə=ts^{h}e* 'king=ASS.GEN' refers to the focal referent *rdʑælpə* 'king' and his associates living with him, be they family members, relatives, or servants. The referent group is close-knit and cohesive, defined primarily by association with the king. On the other hand, substituting for the general, additive plural marking *rdʑælpə=ɲi* 'king=PL.GEN' would indicate several kings (5.32). In the latter case, the kings are distinct and lack internal cohesion as a defined group.

(5.31) *ŋa* *k^{h}ɔ* ***rdʑælpə=ts^{h}e*** *t^{h}o* *ndure* *ɕoŋ=bɔ.*
1SG INTERJ **chieftain=ASS.GEN** DEM.LOC unpaid.labor go.NPST.1=MOD
I will go to the chieftain's place to do corvée labour! (RN: folktale; see §2.8.1 concerning corvée labour in Geshiza Valley in the past.)

(5.32) *ŋa* *k^{h}ɔ* ***rdʑælpə=ɲi*** *t^{h}o* *ndure* *ɕoŋ=bɔ.*
1SG INTERJ **chieftain=PL.GEN** DEM.LOC unpaid.labor go.NPST.1=MOD
I will go to the chieftains' places to do corvée labour! (ACC; see 5.31)

The composition of the associative referent group is relatively fixed, unlike in the case of the general plural marked by *=ɲə*. For instance, (5.33) is judged as pragmatically ungrammatical, since the Geshiza have no clear group taking part in horse races where the composition of the participants varies every year. Since no fixed group for horse racing is established, the only acceptable way to refer with overt number marking to a group of horse racers that have come together is (5.34).

(5.33) **rji-rdʑu-me=ts^{h}əu*
horse-run-NMLZ:S/A=**ASS**
intended meaning: horse racers

(5.34) *rji-rdʑu-me=ɲə*
horse-run-NMLZ:S/A=**PL**
horse racers

Contexts of associative marking

Associative marking appears predominantly with nouns that have a human referent (Dixon 2012: 50). This restriction also applies to Geshiza. Altogether 140 instances of associative

marking are attested in the source materials. The use of the associative reflects animacy hierarchy, associativity mostly occurring with 1. pro-forms (92 instances), 2. personal names (16 instances), 3. kinship nouns (9 instances), and 4. other human-denoting nouns (6). Seen against figure 5.2, the distributional frequency neatly reflects the animacy hierarchy, and pronominal use may be established as the primary domain of associativity in Geshiza.

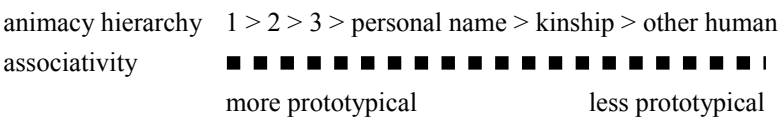


Figure 5.2. Core range of associativity in Geshiza

1. *pro-forms*

Table 5.1 below illustrates the attested pro-forms hosting the associative enclitic. In pro-forms, when applicable, the associative suffix attaches to the clitic-carrying stem (see §4.5.1). In addition to personal pronouns (5.35), the interrogative pro-form *sʰə* 'who' is also compatible with associative formation when a speaker asks about a person's association with a family unit (5.36).

Table 5.1. Associative pro-forms in Geshiza

Base pronoun	Absolutive-ergative	Genitive	Gloss
ŋa	*ŋæ=ntsʰəu*	*ŋæ=ntsʰe*	we=ASS
ɲi	*ɲə=ntsʰəu*	*ɲə=ntsʰe*	you= ASS
xə	*xə=ntsʰəu*	*xə=ntsʰe*	they=ASS
ɲjæ	*ɲjæ=ntsʰəu*	*ɲjæ=ntsʰe*	they=ASS
lmæ	*lmæ=ntsʰəu*	*lmæ=ntsʰe*	they=ASS
tʰə	*tʰə=ntsʰəu*	*tʰə=ntsʰe*	they=ASS
sʰə	*sʰə=nstʰəu*	*sʰə=nstʰe*	who=ASS

(5.35) […] ***ŋæ=ntsʰe*** *æmɲi=tʰə~tʰə* *wo-mgo-me* *dæ-ŋuə-sʰi*
[…] **1=PL.GEN** grandfather=TOP~RED load-carry-NMLZ:A PFV-COP.3-NMLZ

ŋuə-ræ.
COP.3-SENS
My grandfather was a porter. (RN: family history)

(5.36) *ɲi* ***sʰə=nstʰəu*** *ŋuən.* *ɲi* *æpæ* *æmæ* *sʰə* *ŋuə.*
2SG **who=ASS** COP.2 2SG.GEN father mother who COP.3
From whose house are you? Who are your father and mother? (RN: folktale)

As a rare secondary function, when the associative enclitic attaches to a demonstrative pronoun with a non-human referent, it carries a similative meaning. In (5.37), *tʰə=ntsʰəu* indicates that the bought lamp is similar to hanging lamps or belongs to the class of hanging lamps. This helps in identifying the object through association:

(5.37) *<tiænten>=je* *<tiəuten>* ***tʰə=ntsʰəu*** *wne* *gæ-v-rə-sʰi.*
lamp=GEN hanging.lamp **DEM=ASS** two PFV-INV-buy.3-IFR
They bought two lamps like hanging lamps. (RN: chronicle)

2. *personal names*
In addition to prototypical use with pronouns, personal names are the second-most frequent domain of associative marking in the source materials, as shown in examples (5.38, 5.39). The enclitic commonly attaches to *jo-lmə ~ we-lmə* 'house names' (see §2.3.4) in which case it denotes the members of a household as a group:

(5.38) *bəqʰo* ***bændi=tsʰəu=wo*** *we* *dæ-tsær-pə.*
TOPN **PN=ASS.ERG=ERG** house PFV-be.finished-AUX.CAUS.PST.3
In Buke Village, the *bændi* household finished (building) a house. (RN: chronicle)

(5.39) *o* ***ŋgərə=tsʰe*** *tʰo* *ŋkʰuma* *ɕʰa* *næ-ɕʰin=jɔ,*
INTERJ **PN=ASS.GEN** DEM.LOC key take.INF PFV.DIR-go.PST.2=Q

bəsni *gædəɣi.*
today morning
Today morning, did you go to *ŋgərə*'s house to get the key? (RC)

3. *kinship nouns*
Associative marking also appears with kinship nouns, be they used in concrete or metaphorical sense (5.40, 5.41; see §2.3.3 for the Geshiza kinship system). For instance, *akə=tsʰe* refers to all people living in the household of the speaker's paternal uncle:

(5.40) ***ækə=tsʰe*** *rdʑætʰəu-wa* *rə-ɕʰoŋ.*
paternal.uncle=ASS.GEN stove-APUD PFV.DIR-go.PST.1
We went to the kitchen of my paternal uncle's household. (RN: chronicle)

(5.41) ***'æʑo=tsʰe=je*** *wrə=je* *<tɕəukwær>* *dæ-bræ-sʰi'* *jə.*
mat.uncle=ASS.GEN=GEN water=GEN hose PFV-break.ANTICAUS-IFR say.3
'The rubber tube for water at uncle's got broken,' he says. (RN: chronicle)

4. *other human-denoting nouns*

The associative is occasionally seen with other human-denoting nouns. Such associative formations invariably refer to established socially relevant groups among the Geshiza, e.g. monks and lamas living together in a temple (5.42) or royal families in the past (5.43):

(5.42) *qæʑe* *æ-lə* *lmæ* *dæ-ʑe=ræ* ***læma=ts^{h}e***
crow one-CLF.INDEF 3 PFV-come.3=LNK **lama=ASS.GEN**

ʑasæmprə *tɕ^{h}a* *næ-ne-s^{h}ə-mə-ræ-jə.*
golden.decoration.on.temple.rooftops on PFV-rest.3-IFR-EP-SENS-REP
A crow came and rested on the golden decoration on the rooftop of the lama's temple. (RN: folktale)

(5.43) ***rdʑælpə=ts^{h}e=je*** *mæsq^{h}e* *ws^{h}u* *dæ-ntɕo=ræ* […]
chieftain=ASS.GEN=GEN sisters three PFV-have.PST.3=LNK […]
The chieftain's family had three sisters (as daughters). (RN: folktale)

5. *minor cases*

17 out of 140 attested uses of the associative do not fit into the categories discussed above. Such hosts include toponyms (e.g. *ʈʂuŋkui* ~ *ʈʂuŋkuo* 'China') and names for social groups (e.g. *groŋ* 'village'). While both types are per se inanimate, when hosting the associative enclitic, they receive an animate semantic interpretation. First, the use of a toponym with the associative indicates the inhabitants of the place as a cohesive group (5.44). Second, associative marking for a noun denoting a group indicates the members of the unit as a cohesive group (5.45).

(5.44) ***<ʈʂuŋkuo>=ts^{h}e*** *rŋa=t^{h}ə* *p^{h}ru~p^{h}ru* *ŋuə-ræ.*
China=ASS.GEN face=TOP RED.ADJZ~white COP.3-SENS
The Chinese people have white faces. (MEE: interview)

(5.45) ***groŋ=ts^{h}əu*** *n-a-ŋi=mɔ.*
village=ASS PREF-OPT-go.well=MOD
Let it go well for the people in the village. (RN: ethnographic description)

Geshiza culture and the associative

When modified by pronouns, some referents are due to cultural reasons frequently referred to using the associative, rather than plural modifiers in Geshiza. This covers 1. family members (5.46); 2. servants (5.47); 3. domestic animals (5.48). This reflects the status of family as a basic unit of people. By extension, servants and domestic animals belong to this unit generally referred to with associative, rather than plural genitive modifiers.

(5.46) *ŋæ=ntsʰe æmɲi*
1=ASS.GEN grandfather
my grandfather, our grandfather

(5.47) *xə=ntsʰe=je lɔrdə*
DEM=ASS.GEN=GEN servant
their servant

(5.48) *luzi=tsʰe rgo*
PN=ASS.GEN cow
the cow of *luzi* household

5.3. Case marking

Grammatical case is often defined via inflection, e.g. as 'an inflectional feature of nouns that serves to code the noun phrase's semantic role' (Haspelmath and Sims 2010: 321). Geshiza cases, however, are enclitics adjoining a noun phrase, rather than an inflectional feature of selected word classes. Ergo, borrowing from the definition of case affix by Dryer (2013c), I define grammatical case for Geshiza as an enclitically marked feature of noun phrases that signal a grammatical or semantic relation between the noun phrase and another word that is typically a verb. For instance, in *lŋa=wo ŋgə-ræ* (child=ERG eat.3-SENS) 'The child will eat', the ergative case marked by the enclitic *=wo* indicates that the child is the Agent (see §7.4.1), namely the instigator of the action described by the verb *ŋgə* 'to eat'. As discussed in §7.4, Geshiza case enclitics play a pivotal role in coding semantic roles in the grammar of the language.

The following survey lists the cases of Geshiza from primarily a formal viewpoint with minimal illustrations on their main roles. The coding of semantic roles by case enclitics receives a dedicated treatment in §7.4 from a functional approach, complementing this concise formal introduction. The section closes with a discussion on case stacking (§5.3.12).

Summarised in Table 5.2 on the following page, Geshiza has ten cases: the unmarked absolutive (§5.3.1); ergative *=wo* (§5.3.2); genitive *=je* (§5.3.3); dative *=ke* (§5.3.4); instrumental *=tɕe* (§5.3.5); approximative locative *=ŋɛtɕe* (§5.3.6); locative *=nɔ* (§5.3.7); terminative *=lɔ* (§5.3.8), comitative *=pʰa* (§5.3.9); and comparative *=bɔmŋa* ~ *=bɔmja* (§5.3.10). In addition, the language includes three unproductive case markers: locative *-ɣa*, superessive *-wo*, and apudessive *-wa* (§5.3.11).

Table 5.2. Geshiza case enclitics

Category	Case	Enclitics and suffixes
Core cases	absolutive (§5.3.1)	unmarked
	ergative (§5.3.2)	*=wo* ~ fusional forms
	genitive (§5.3.3)	*=je* ~ fusional forms
	dative (§5.3.4)	*=ke*
Oblique cases	instrumental (§5.3.5)	*=tɕe*
	approximative locative (§5.6)	*=ŋɛtɕe*
	locative (§5.37)	*=nɔ*
	terminative (§5.3.8)	*=lɔ*
	comitative (§5.3.9)	*=pʰa*
	comparative (§5.3.10)	*=bɔmŋa* ~ *=bɔmja*
Unproductive cases	locative (§5.3.11)	*-ɣa*
	superessive (§5.3.11)	*-wo*
	apudessive (§5.3.11)	*-wa*

As example (5.49) demonstrates, case enclitics in Geshiza operate at the phrase level, so that a single marking at the end of the phrase is sufficient for indicating the case of the whole phrase:

(5.49) *vdzi* *æ-ɣi=**wo***
man one-CLF.person=**ERG**
one man (does or did something)

Unlike in the context of number discussed above, multiple marking, however, is allowed for case, although it occurs only on very rare occasions in the sources, as example (5.50) shows:

(5.50) *sme=**wo*** *æ-ɣi=**wo***
woman=**ERG** one-CLF.person=**ERG**
one woman does or did something)

Macro division of Geshiza cases

Grammatical descriptions often divide cases of a language into abstract cases that express core syntactic relations and more concrete cases that have more specific semantic roles, yet the used terminology for the two major groups varies by author (Haspelmath 2009: 508). In this grammar, productive cases of Geshiza are divided into core (absolutive, ergative, genitive, dative) and oblique (the rest) cases. Distinguishing the two groups helps in understanding their functional differences in Geshiza grammar (see also §7.4). Core cases are more abstract and code the core

arguments. The oblique cases in turn frequently express more concrete spatiotemporal notions. The dative is often a borderline case in the assumed dichotomy (Næss 2009: 573; see also Blake 2001: 31 for arguments for interpreting the dative as a core case in case systems). The Geshiza dative differs formally from other core cases by lacking a fusional form, yet it equally serves a grammatical role in optional marking of Patients (see §7.4.2), Recipients (see §7.4.3), and occasionally Possessors (see §7.4.4). At the same time, like oblique cases, it has spatio-temporal uses.

Differentiating cases from postpositions

In Geshiza, the categories of case and postpositions (see §4.8) are clearly separate for the following reasons. First, from the distributional viewpoint, case enclitics precede the postpositions in a phrase (5.51). Second, as illustrated in the same example, postpositions govern case markers, frequently requiring the genitive case, even though this requirement is not strictly followed, especially by younger speakers, except in the context of pronouns. Third, the case markers and postpositions differ semantically, the former being abstract while the latter are more concrete. Finally, the case enclitics are devoid of independent existence, unlike the postpositions that do not necessarily require a host.

(5.51) *rirəu* *ws^{h}u=**je*** ***ʂtɕil**=ræ* *tɕo-mts^{h}o* *æ-lə*
mountain three=**GEN** **middle**=LNK iron-lake one-CLF.INDEF

gæ-tɕɔ-s^{h}i.
IPFV-emerge.PST-IFR
In the middle of three mountains, there is an iron lake. (RN: folktale)

5.3.1. Absolutive (unmarked)

In Geshiza, the absolutive case is the only formally unmarked case form. This follows a widely attested cross-linguistic tendency. In ergative languages, typological data points that the absolutive is the unmarked citation form (Dixon 1994: 62). Geshiza absolutive functions prototypically as the case of S in intransitive clauses (5.52), and P in transitive clauses (5.53). For the purposes of this grammar, S is defined as the single participant of an intransitive clause, while P refers to the non-agentive participant of a transitive clause. Since the absolutive case has no marking, for the sake of convenience, it has been omitted from the glossing, except when otherwise mentioned (glossing in such instances: ABS).

(5.52) *s^{h}æmɲo ŋæ=ɲi* *xo* ***vdə*** *æ-lə* *dæ-rji-s^{h}i,* *srəmbo.*
later 1=PL.GEN DEM.LOC **ogre** one-CLF.INDEF PFV-emerge-IFR ogress
Later, an ogre emerged in our place, an ogress. (RN: folktale; see §2.7.1 for creatures of the Geshiza ontology; notice also self-correction by the speaker)

(5.53) ***e*** ***vdə=tʰə*** *ŋa* *vtu=ræ* *sʰəu.*
DEM **ogre=TOP** 1SG vanquish.NPST.1SG=LNK kill.NPST.1SG
I will vanquish and kill that ogre. (RN: folktale)

5.3.2. Ergative *=wo*

The ergative case expressed with the enclitic *=wo* (glossing: ERG) marks A of a transitive clause (5.54), A being defined here as the most agent-like participant of a transitive clause. The case enclitic is subject to vowel fusion and frequently fuses the final vowel of the preceding word, thus being truncated (see §3.4.3). The form *=wə* is also heard in some villages around Balang.

(5.54) ***ŋæ=ɲu*** *vo* *gæ-tan-sʰi.*
1=PL.ERG alcohol IPFV-drink.PST.1PL-IFR
We were drinking alcohol. (RN: dream)

Animacy hierarchy, pragmatics and marking of ergativity

Animacy hierarchy may impose restrictions for the use of ergative case (Palancar 2009: 565). Ergative marking is optional in the highest end of the animacy/accessibility hierarchy in Geshiza, namely with speech-act-participants. Its appearance is nevertheless grammatical in this context, (compare 5.54 and 5.55), which is why Geshiza cannot be interpreted to show case-asymmetry with a unified absolutive-ergative case for SAP pronouns.[54] In many Australian languages, for instance, certain ranges along animacy hierarchy follow nominative-accusative alignment. Since ergative coding for SAPs is possible in Geshiza, I do not consider the language to manifest prototypical split ergativity where the SAPs would follow nominative accusative alignment vis-à-vis ergative alignment in all remaining scenarios.

(5.55) ***ɲi*** *dzi* *dæ-ŋgi=za.*
2SG food PFV-eat.2SG=Q
Have you eaten? (OU)

Sketches from other Horpa languages report similar or even stricter conditions in marking ergativity. For instance, use of the ergative case is incompatible with speech-act-participants in Nyagrong Minyag (Suzuki 2012) and Poxiu Stau (personal fieldwork). Also, optional ergative/agentive marking is more widely attested in various forms among Trans-Himalyan languages (Chelliah and Hyslop 2011).

[54] Following Iggesen (2009: 249): 'A given language shows case-asymmetry if the inventory of morphological case categories in at least one of its distinct NP types deviates from the case inventory in its normative system.' Based on a typological study, the author also concludes that case-asymmetry overwhelmingly occurs in the domain of SAP pronouns. Limited case-asymmetry in English is well-known: house (invariable) vs. *I* (direct case) and *me* (objective case).

5.3.3. Genitive *=je*

The genitive case in Geshiza is expressed by the enclitic *=je* (glossing: GEN), also subject to vowel fusion. Typically, the genitive marks its referent as a possessor of another noun in a genitive phrase (5.56). Also, as mentioned in the introduction of §5.3, in a postposition phrase, the dependent can be optionally marked with the genitive.

(5.56) ***wərja=je*** *lmu* *tɕʰæ-ræ.*
chicken=GEN cockscomb be.big.NPST.3-SENS
Cocks have big cockscombs. (lit. Chickens' cockscombs are big) (MEE)

5.3.4. Dative *=ke*

Prototypically, the dative *=ke* (glossing: DAT) in Geshiza marks the recipient of transfer (5.57) in both physical and abstract scenarios. Geshiza lacks a dative shift that promotes the recipient into an absolute case direct object, the recipient being constantly marked with the dative when not omitted for pragmatic reasons. In pronouns, parallel to the regular *ŋæ=ke* (1SG=DAT) an irregular dative form *æŋ=ke* has arisen. The later metathesised form has become the standard first person dative, but the original *ŋæ=ke* can still occasionally be heard, especially in the speech of elderly people.

(5.57) *o* ***lmæ=ɲə=ke*** *kʰoŋ* *vɕe-ræ* *tɕʰu.*
INTERJ **3=PL=DAT** give.NPST.1PL AUX.must.NPST-SENS CONJ
We must give them (money). (RC)

5.3.5. Instrumental *=tɕe*

As its code function, the instrumental marked with *=tɕe* (glossing: INSTR) expresses an instrument (5.58). In addition to its use with concrete instruments, the instrumental also appears with body-parts that the subject uses and controls in an instrument-like fashion, as in (5.59) where the grandmother tells the granddaughter not to use her hands for eating. In a less concrete fashion, the instrumental also optionally appears with non-controllable sensory organs that function as an 'instrument' of sensory perception, predominantly the eyes and ears (5.60). Finally, with the verb *vɕæ* 'to speak', the language one uses is encoded with the instrumental: *bæ-skæ=tɕe vɕæ* 'to speak in Geshiza'; *rdʑæ-skæ=tɕe vɕæ* 'to speak in Chinese'.

(5.58) ***ɣəu=tɕe*** *rji=je* *kæpala=ke* *æ-ntʰsɔ*
needle=INSTR horse=GEN forehead=DAT one-CLF.hit:needle

gæ -v-ra=ræ *rji* *lmæ* *lɔ* *dæ-ŋkær-sʰə-mə-ræ.*
DIR-INV-hit.3=LNK horse 3SG back PFV-return.PFV.3-IFR-EP-SENS

He (*a khu ston pa*) struck the forehead of the horse with a needle and the horse turned back again. (RN: folktale)

(5.59) ***ʑa=tɕe*** *dæ-di-ŋgi=bɔ.*
hand=INSTR IMP-IRR.NEG-eat.2SG=MOD
Don't eat with your hands! (OU; instrumental obligatory)

(5.60) *ŋa* ***ɲoŋ=tɕe*** *dæ-sŋu.*
1SG **ear=INSTR** PFV-hear.1SG
I heard it with my ears. (MEE; instrumental optional)

The instrumental case has a secondary locational role in Geshiza (5.61; see §7.4.8 for details):

(5.61) ***læte=tɕe*** *næ-ɕ^{h}oŋ.* *dæ-ŋgædoŋ* *tɕ^{h}əs^{h}o* *læte*
PN=INSTR PFV.DIR-go.PFV.1 PFV-wake.up.early.1 DM PN

rgəmba *t^{h}o* *mdzo* *dæ-ŋgoŋ.*
monastery DEM.LOC lunch PFV-eat.1PL
We went, we via *læte*. We woke up early in the morning and ate our lunch at the *læte* Monastery. (RN: personal history)

5.3.6. Approximative locative *=ŋɛtɕe*

The approximative locative case marked with (glossing: APPR.LOC) 'around X, in the direction of X' indicates an approximation of location (5.62). Of all the cases, it is disyllabic and a relatively recent or even an ongoing grammaticalisation. Structurally the case enclitic originates from the historical noun *-ŋɛ* 'place' never occurring independently in contemporary Geshiza, followed by *=tɕe*, the instrumental case enclitic (see §5.3.5). The new case enclitic is thus semantically very transparent and largely corresponds to the locational role of the instrumental case discussed above.

(5.62) ***lit^{h}oŋ=ŋɛtɕe=t^{h}ə~t^{h}ə*** *sme* *æ-ɣi* *mæsti*
TOPN=APPR.LOC=TOP~RED woman one-CLF.person brothers

æ-vtɕa=je *rjəu* *æ-rgəu* [unfinished]
one-CLF.pair=GEN wife one-CLF.general [unfinished]
Around Litang, (there is a tradition) of one woman (marrying) a pair of brothers. (RN: ethnographic description)

5.3.7. Locative =*nɔ*

Geshiza rarely marks location with a locative enclitic (see §7.4.8). The case system of the language nevertheless also includes a locative enclitic =*nɔ* (glossing: LOC), illustrated in example 5.63):

(5.63) <*kʰɛxui*> *dæ-və=je* *ŋui-sni=tʰə~tʰə* *stæ=wo*
meeting PFV-LV:do.INF=GEN before-day=TOP~RED everyone=GEN

<*ʂetʂʰan*>=*nɔ* <*ʈʂunpe*> *van* *dæ-vɕʰe.*
village.square=LOC preparations LV:do.1PL PFV-AUX.must.PST
On the day before the meeting, all of us had to do the preparations at the village square. (RN: chronicle)

5.3.8. Terminative =*lɔ*

The terminative =*lɔ* 'until, up to' (glossing: TERM) encodes an endpoint, expressing either a spatial (5.64) or temporal (5.65) endpoint of an action:

(5.64) Spatial use:
ŋæ=ɲə=tʰə *dæ-baboŋ* *rə-ɕʰoŋ.* ***qæ-yuə=lɔ***
1=PL=TOP PFV-walk.1 PFV.DIR-go.PST.1 **mountain.CS-head=TERM**

rə-ɕʰoŋ.
PFV.DIR-go.PST.1
We went up waling. We went up to the mountain top. (RN: chronicle)

(5.65) Temporal use:
tʰævæ=lɔ=tʰə *rguæsʰə=tʰə* *gəndɔ* *gæ-mɛ-ɕʰə-sʰi* *tɕʰu.*
now=TERM=TOP cattle=TOP greatly IPFV-ASP.NEG-go.PST.3-IFR CONJ
Until now, the cattle have not greatly gone there (to eat grass), so... (there is still a lot of grass left there. (RC)

5.3.9. Comitative =*pʰa*

The comitative case enclitic =*pʰa* (glossing: COM) expresses accompaniment that is prototypically a human being (5.66, 5.67):

(5.66) *ŋæ=ntsʰe* *æpa* ***ɲi=pʰa*** *dʑi=za,* *dʑi=za.*
1=ASS.GEN father **2SG=COM** EXV.3=Q EXV.3=Q
Is my father with you? He has switched off his phone. (UA: WeChat message)

(5.67) ***bændi-næmkʰa=pʰa*** *sʰo* *æ-ɣi* *ŋuə-ræ.*
PN-PN=COM more one-CLF.person COP.3-SENS
There is one more person (in the photo) with *bændi-næmkʰa*. (RN: chronicle)

5.3.10. Comparative *=bɔmŋa ~ =bɔmja*

The comparative case enclitic (glossing: CMPR) attaches to the standard of comparison in comparative clauses (5.68). Comparative clauses are discussed in detail in §7.7.3. The comparative case is a dedicated case marker in Geshiza, i.e. besides comparison, it has no other functions in Geshiza grammar. Dedicated comparative cases are attested in some languages (Haspelmath 2009: 515).

(5.68) *məsni* *mægə=**bɔmŋa*** *skɛ* *wtsæ-ræ.*
today yesterday=**CMPR** more hot.NPST-SENS
Today is hotter than yesterday. (MEE)

The etymology of *=bɔmŋa ~ =bɔmja* is lucid, the form consisting of the adverb *bɔ* 'like, thus' attaching to the negative copula *mŋa ~ mja* (see §11.2.4). Both *bɔmŋa* and *=bɔmja* are acceptable realisations of the case enclitic (see §3.3.2.1. *Preinitial* m for variation in the cluster *mŋ ~ mj*). It's position as a member of Geshiza case system as a full member is not clear. Together with the approximative locative enclitic (see §5.3.6), *bɔmŋa ~ =bɔmja* is bisyllabic, and thus deviates from the canonical length of fully grammaticalised case enclitics in Geshiza. It, however, never appears independently as a free-standing adverb. In addition to the comparative case enclitic, a similative/semblative case is likely being grammaticalised from the adverb *bɔ* 'like, thus'(see §7.7.1 for dedicated discussion). Unlike *bɔmŋa ~ =bɔmja*, *bɔ* also retains independent use.

5.3.11. Unproductive cases

Geshiza has three unproductive cases that encode spatio-temporal relations: general locative *-ɣa,* superessive *-wo,* and apudessive *-wa*. In their spatial function, they express rather exact orientational notions, e.g. on top or by the side of a ground. Since the three cases have highly low productivity and their presence is commonly determined by case-by-case basis, they are more suffix-like than the prototypical case enclitics discussed above. For this reason, they are conventionally separated with the dash in this grammar.

In the light of comparative West Gyalrongic data, it is possible that these morphemes originate as historical case markers. In Geshiza, they have largely eroded into semi-fossilised devices with limited productivity. Especially low productivity makes classifying them as full case markers problematic from the synchronic perspective. The enclitics are currently evolving into unproductive suffixes that derive spatio-temporal nouns, which can be verified both from their semantic properties and morphosyntactic properties. Interpreting them as a device for

deriving a subtype of adverbs is thus not justified in Geshiza, unlike in some other languages with marginal cases of low productivity. In analyses of Finnish grammar, for instance, it is common to interpret the instances of the prolative, a case with low productivity as adverbs: *meri* 'sea (nominative)' > *meritse* 'by sea (prolative adverb)'.

Locative -ɣa

The suffix *-ɣa* (glossing: LOC) encodes both spatial (5.69) and temporal (5.70) meanings. In both instances, it has a very low frequency and major distributional limitations. For instance, in its temporal meaning, *-ɣa* only is only attested with the borrowed Tibetan month names (see §2.4.1) and with the two terms for seasons: *rtso* 'cold season', *vʑar* 'warm season'. The Geshiza suffix is clearly a cognate to a more productive Stau locative/allative marker *=ʁa*. Table 5.3. on the following page lists major attested cases of locative *-ɣa.*

(5.69) ***mtɕʰærten-ɣa*** *skærva* *dæ-van.*
stupa-LOC circumambulation PFV-LV:do.1PL
We circumambulated the stupa. (RN)

(5.70) ***ɑ̱səmba-ɣa*** *tɕʰu* *ʑikʰro* *g-ə-və.*
third.lunar.month-LOC CONJ *ʑikʰro*=GEN PREF-NACT-LV:do.3
The *ʑikʰro* Scripture Recital is celebrated in the third month. (RN; see §2.4.1. *ʑikʰro Scripture Recital* for more details concerning the festival)

Table 5.3. Examples of locative *-ɣa*

Noun	Gloss	Locative	Gloss
tɕəpa	1st Tibetan month	*tɕəpa-ɣa*	in the 1st Tibetan month
ɲəpa	2nd Tibetan month	*ɲəpa-ɣa*	in the 2nd Tibetan month
ʂəmba	3rd Tibetan month	*ʂəmba-ɣa*	in the 3rd Tibetan month
vʑəpa	4th Tibetan month	*vʑəpa-ɣa*	in the 4th Tibetan month
rŋæpa	5th Tibetan month	*rŋæpa-ɣa*	in the 5th Tibetan month
ɖʐupa	6th Tibetan month	*ɖʐupa-ɣa*	in the 6th Tibetan month
vdənpa	7th Tibetan month	*vdənpa-ɣa*	in the 7th Tibetan month
rdʑæpa	8th Tibetan month	*rdʑæpa-ɣa*	in the 8th Tibetan month
lgupa	9th Tibetan month	*lgupa-ɣa*	in the 9th Tibetan month
vtɕəpa	10th Tibetan month	*vtɕəpa-ɣa*	in the 10th Tibetan month
tɕətɕəpa	11th Tibetan month	*tɕətɕəpa-ɣa*	in the 11th Tibetan month
tɕəɲəpa	12th Tibetan month	*tɕəɲəpa-ɣa*	in the 12th Tibetan month
rtso	cold season	*rtso-ɣa*	in the cold season
vʑar	warm season	*vʑar-ɣa*	in the warm season
bjæ-zde	right side of river	*bjæ-zde-ɣa*	on the right side of river
ɣæ-zde	left side of river	*ɣæ-zde-ɣa*	on the left side of river
kʰuə-zde	left side of river	*kʰuə-zde-ɣa*	on the left side of river
skʰo-zde	left side of side river	*skʰo-zde-ɣa*	on the left side of side river
zɣæ-zde	right side of side river	*zɣæ-zde-ɣa*	on the right side of side river
mtɕʰærten	stupa	*mtɕʰærten-ɣa*	around the stupa

Superessive -wo

As shown in examples (5.71, 5.72), the superessive suffix *-wo* (glossing: SUPE) indicates a vertical locative relation of a figure on a ground or more abstractly in the temporal context, the time of an event (c.f. English *on Christmas*). However, in the source materials, it only appears in conjunct with two extremely common nouns: *tɕæ* 'road' and *ʑə* 'field' in a spatial meaning and with two temporal nouns, as shown in Table 5.4 on the following page. The existence of a figure on a ground is commonly expressed with the postposition *tɕʰa* 'on, above' (see §4.8.3).

(5.71) *dupə* *æ-zləu* *næ-v-gə=ræ* *xaræ* *tɕʰu* ***tɕæ-wo***
rags one-CLF.set.of.clothes PFV-INV-wear.3=LNK CONJ CONJ **road-SUPE**

næ-ndodo-sʰi *ŋuə-ræ.*
PFV-lie.3-NMLZ COP.3-SENS
He wore rugs and lay down on the street (to test the sisters). (RN: folktale)

(5.72) *tʰævære,* ***lɔre-ɲa-wo*** *tɕʰu* *rŋæmtɕʰæ-ɲa* *ŋuə-mə-ræ.*
present **coming-black-SUPE** CONJ *rŋæmtɕʰæ*-black COP.3-EP-SENS
So the present, the following period of black days is *rŋæmtɕʰæ-ɲa*. (See §2.4.1 and/or *Appendix II: Culture-specific lexicon* for the period of *rŋæmtɕʰæ-ɲa*).

Table 5.4. Examples of *superessive -wo*

Noun	Gloss	Locative	Gloss
tɕæ	road	*tɕæ-wo*	on the road
ʑə	field	*ʑə-wo*	on the field
ɲa	black day	*ɲa-wo*	on a black day
pʰru	white day	*pʰru-wo*	on a white day

Apudessive -wa

The historical apudessive case marked by *-wa* (APUD) encodes a spatial relation in which a figure that typically exists by the side of a ground (5.73, 5.74). In at least one instance, the semantics of existing by the side has evolved considerably further: *rdʑætʰəu* '(Chinese) stove' > *rdʑætʰəu-wa* 'space around the sides of the stove, i.e. kitchen'. Such development illustrates the functional shift of the historical case markers towards a derivational device. Table 5.5 on the following page is a list of attested instances of apudessive use from the source materials.

(5.73) ***ŋɲo-wa=ræ*** *xaræ* *ə* *spoɴqæl* *æ-rgəu=ræ* *ə*
river-APUD=LNK CONJ HES FROG ONE-CLF.general=LNK HES

wrəbjo *wne* *dæ-dʑi-sʰi=mɲoŋ,* *æ-ŋuə-ræ.*
dragonfly two PFV-EXV.3-IFR=MOD Q-COP.3-SENS
By the side of a river, there was a frog and two dragonflies, right? (RN: folktale)

(5.74) *ŋæ=ɲə* *mæsqʰe* *wsʰu=tʰə* ***mtʰso-wa*** *æ-ŋɛ* *ɕoŋ=za.*
1=PL sisters three=TOP **lake-APUD** one-CLF.place go.NPST.1=Q
Shall we three sisters go to a place by a lakeside? (RN: folktale)

Table 5.5. Examples of apudessive *-wa*

Noun	Gloss	Locative	Gloss
ɑ̂mær-	area around mouth	*ɑ̂mær-wa*	area around the mouth
doŋkʰær	large prayer wheel	*doŋkʰær-wa*	by the large prayer wheel
dzo	bridge	*dzo-wa*	at the side of a bridge
katsi	village gate	*katsi-wa*	by the village gate
konlu	highway	*konlu-wa*	by, at the side of a highway
kʰrə	bed	*kʰrə-wa*	by the bedside
mtsʰo	lake	*mtsʰo-wa*	side of a lake
qlo	valley	*qlo-wa*	side of a valley
ræmər	well	*ræmər-wa*	side of a well
rdʑætʰəu	stove	*rdʑætʰəu-wa*	side of a stove, kitchen
rŋo	river	*rŋo-wa*	by the river
rətɔ	mill(stone)	*rətɔ-wa*	by the side of a mill(stone)
1tɕæ	road	*tɕæ-wa*	by the roadside

5.3.12. Case stacking

Geshiza allows the presence of multiple case enclitics in a noun phrase. Case stacking, or double case marking, is limited to the following instances: ergative=ergative (5.75), genitive=genitive (5.76, following page), and ergative=instrumental (5.77, 5.78; following page). Additionally, in a conditioned instance of stacking, the comitative case requires a genitive form of a hosting pronoun: genitive=comitative. Stacking is limited to maximally two case enclitics, and three consecutive case enclitics are not attested.

Disambiguating function of case stacking

Case stacking frequently takes place in noun phrases ending with a vowel. Due to vowel fusion (see §3.4.3), a single-marked ergative or genitive form often barely differs from the absolutive form. This is illustrated in example (5.75) where *=ɲu* (PL.ERG) is the fusional form of *=ɲə=wo* (PL=ERG). As a disambiguating countermeasure, a second case marker is adjoined to the already case-marked form:

(5.75) Ergative=ergative:

<tui>	*məsni*	***ækə=ɲu=wo***	*mæne-<xui>*	*dæ-və.*
INTERJ	today	**lama=PL.ERG=ERG**	mani-meeting	PFV-LV:do.3

Today, the lamas did a mani-recital-meeting. (RN: ethnographic description; see §2.4.1. *Mani Recital* concerning the event)

(5.76) Genitive=genitive:

ŋæ=ɲi=je	*skæ*	*bɔtʰə=kʰa*	*d-ə-doŋ.*
1=PL.GEN=GEN	language	like.this=about	PREF-NACT-LV:do.1PL

In our language, we say approximately like this. (RN: folktale)

Other functions of case stacking

Case stacking also occurs in the following other documented instances in Geshiza that cannot be interpreted as a disambiguating measure:

ergative=instrumental

The instrumental occasionally appears stacked with the ergative as ERG=INSTR. In this case stacking, the instrumental constitutes the fundamental core, since the ergative can be removed with only a minimal semantic effect. The presence of the ergative emphasises agentive force of the instrumental. For instance, in (5.77) it is the wooden mini barrel-like container that takes the water out of the well; in (5.78), the tiredness kills the unfortunate merchant that has become yet another victim of *a khu ston pa's* deceit:

(5.77)

ŋæ=ɲi	*a̱na*	*tɕʰu*	*wrə=tʰə=ræ*	*kʰəu*		*dæ-krəm-sʰi*
1=PL.GEN	past	CONJ	water=TOP=LNK	draw.water.INF		PFV-have.custom.NMLZ
ŋuə-ræ,		***gæwdo=wo=tɕe,***			*ræmər-wa=ræ.*	
COP.3-SENS		**wooden.container=ERG=INSTR**			well-APUD=LNK	

In the past, we had the custom of drawing water by a wooden container from a well. (RN: folktale)

(5.78)

bɔ-tʰu=tɕe	***rka=wo=tɕe=ræ***		*rdʑælpə=tʰə*
like=DEM.ERG=INSTR	**be.tired.INF=ERG=INSTR**=LNK		rich.person=TOP
dæ-v-sæ-sʰi		*ŋuə-mə-ræ-jə.*	
PFV-INV-kill.PST.3-NMLZ		COP.3-EP-SENS-REP	

Like that, (*a khu ston pa*) killed the rich person (i.e. the merchant) by tiredness (i.e. tiring him to death). (RN: folktale)

genitive=comitative

When personal and demonstrative pronouns host the comitative case enclitic, they must be in their fusional genitive form (5.79, 5.80, following page). As discussed in §5.3, postpositions in Geshiza govern the case markers by requiring a genitive, but this is obligatory only in personal and demonstrative pronouns. The behaviour of *=pʰa* may consequently reflect the origin of the comitative as a relator noun or postposition that has undergone desemanticisation and

decategorisation. A grammaticalisation path from adpositions into case affixes is widely documented (Heine 2009: 462-463). Unlike postpositions, the case enclitic *=pʰa* cannot occur independently. Similarly, In all, the comitative must be synchronically seen as a case that stands in a paradigmatic relationship with the other case enclitics.

(5.79) **ŋɛ=pʰa** *gæ-tjin=za.*
1SG.GEN=COM DIR-come.NPST.2=Q
Will you come with me? (RN: chronicle)

(5.80) ***ŋa=pʰa** *gæ-tjin=za.*
1SG=COM DIR-come.NPST.2=Q
Intended meaning: Will you come with me? (REJ; see 5.79)

Typological-comparative remark
Case stacking is attested in other Trans-Himalayan languages, e.g. in the Tibetic Denjongke (Yliniemi 2019: 138) where it equally functions as a disambiguating measure. When a case clitic results in a fusion with the host, the contrast between a case-marked and non-marked forms becomes minimal. The addition of a further case clitic thus supplements the eroded form.

5.4. Discourse marking

Geshiza noun phrases host discourse intensifier enclitics that follow the case enclitics as the last element of a noun phrase, having thus a scope over the whole phrase, as shown in examples (5.81, 5.82). The most important of the enclitics are the intensifying enclitic *=be ~ =me*, the restrictive enclitic *=zɔ* , and the limitative enclitic *=me ~ =mde*. The enclitics are discourse intensifiers and due to their central function in information structure, receive a dedicated treatment in that context (see §13.5). Occasionally, discourse intensifiers occur outside noun phrases, a phenomenon also attested in related languages, e.g. Wadu Pumi (Daudey 2014: 245).

(5.81) *tʰə=tʰə* **ŋa=be** *<tsətsʰə>* *ven-ræ=bɔ.*
DEM=TOP **1SG=too** supporting LV:do.2-SENS=MOD
I too will support you in that. (RC)

(5.82) *dʑədə* *n-ə-stɕʰəkʰan=mde* *sʰo* **ŋæ=ɲi** **tɕʰa**
book PREF-NACT-look.NPST.1PL=MOD DM **1=PL.GEN** **time**

tʰə=ke=zɔ *stɕʰəkʰi=ʑæ* *ma-ræ.*
DEM=DAT=only look-NMLZ:P NEG.EXV-SENS
Let's have a look at the (account) book, but it won't do looking only at those (entries)

of our time, (since a lot of time has passed since we were given the gift, and people now tend to give more as a result of long-lasting favourable economic development in the region). (RC; see §2.7.3 for reciprocity and gift giving among the Geshiza)

5.5. Modification

Geshiza nouns frequently undergo modification, the subject of this section. The resulting multi-constituent noun phrases include possessive modifiers (§5.5.1); adjective modifiers (§5.5.2); classifier phrase and enumerative noun phrase (§5.5.3); distributive noun phrase (§5.5.4); and quantified noun phrase (§5.5.5).

5.5.1. Possessive modifiers

Following Dryer (2007: 178), genitive construction is defined for Geshiza as a bipartite construction consisting of a modifying noun phrase (also termed 'the possessor') and a modified noun (also termed 'the head noun' or 'the possessed noun'). Geshiza has one genitive construction (5.83-5.85). The construction avails of the genitive case enclitic *=je* (see §5.3.3.) that attaches to the possessor that precedes the possessed. Unlike core Gyalrong languages, Geshiza lacks possessive prefixes (see §4.2.5. *Lack of possessive prefixes*).

(5.83) *bæ=je* *rdʑælpə*
Tibet=GEN king
king of Tibet

(5.84) *æmŋi=je* *lmə*
grandfather=GEN name
grandfather's name

(5.85) *bəra-vɛ* *s^{h}ætɕa*
TOPN-NAT.GEN place
Balangers' place

As in (5.85), adjoining the genitive enclitic often results in a vowel fusion in a word with a simple vowel coda (see §3.4.3). Simple juxtaposition of two nouns or noun phrases cannot be universally used as a genitive construction in the language: **bæ rdʑælpə* (Tibet king) with the intended meaning: 'king of Tibet'. As discussed in §6.3.1, however, the relationship encoded in a genitive construction is often interchangeable with a compound lacking morphological marking between the constituent parts: *rdʑæ=je skæ* (Chinese=GEN language) 'language of the Chinese' versus *rdʑæ-skæ* 'Chinese language'.

Meanings of the genitive construction

The Geshiza genitive construction is used for possession (5.86); whole-part relations (5.87); and kinship relations (5.88). All three have been identified as typological core functions of the genitive construction (Aikhenvald and Dixon 2013: 3).

(5.86) Possession:

dærdʑe=je	*<ʈsʰetsə>;*	*lŋa=je*	*tsʰæzgə*
PN=GEN	car	child=GEN	clothes
dærdʑe 's car;		the child's clothes	

(5.87) Part-whole relations:

rji=je	*kæpəla;*	*<jimukʰon>=je*	*tɕæ*
horse=GEN	forehead	mica.mine=GEN	road
the horse's forehead;		the road of the mica mine	

(5.88) Kinship relations:

ækə=je	*bəʑə;*	*ŋæ=je*	*<sənsən>*
paternal.uncle=GEN	son	1SG=GEN	grandchild
paternal uncle's son;		my grandchild	

In addition, among its frequently-occurring secondary functions in the source materials, the genitive construction may be used in the spatial domain to code the relationship between a postposition and its complement (5.89; see §4.8 for postpositions). The genitive construction is also used for marking association a vaguely defined concept indicating the existence of association between the modifying noun phrase and the modified noun, such as *the linguist's friend* in English (5.90).

(5.89) Orientation and location:

pælma-mætɔ=je	*tɕʰa;*	*ʑə=je*	*æskʰo*
lotus-flower=GEN	on	field=GEN	medial.upriver.side.LOC
on the lotus flower;		upriver side of the field	

(5.90) Association:

bəmbi=je	*rgəmba;*	*rdʑælpə=je*	*ʂasælpən*
Bönpo=GEN	monastery	chieftain=GEN	steward.in.chief
monastery of the Bönpo		chieftains's steward-in-chief;	

Further extended genitive functions in Geshiza are grammatical in nature and are among others cover marking an Experiencer (see §7.4.5) and Affectee (§7.4.6).

Recursive possession

While single genitives dominate in the source materials (5.91, 5.92), the construction can also be used recursively. In recursive possession, pragmatic factors mostly restricting such instances to two genitives in a row (5.93):

(5.91) ***dærdʑe=je*** ***<ʈʂʰetsə>*** *=nɔ* *gæ-ʑə~ʑan.*
PM=GEN **car**=LOC PFV.DIR~RED-come.1
We came (back home) in *dærdʑe*'s car. (RN: chronicle)

(5.92) ***kəta=je*** ***məu=tʰə*** *dæ-v-tæpæ-sʰi* *ŋuə-ræ.*
dog=GEN **eye=TOP** PFV-INV-remove.PST.3-NMLZ COP.3-SENS
They gouged the dog's eyes out. (RN: folktale)

(5.93) *ŋdʐəgə=tʰə* *<ʂə-jye>* *<sæn-ʂə-ji-xəu>* *dæ-ŋuə.*
day.before.yesterday=TOP ten-month three-ten-one-day.of.month PFV-COP.3

nærdʑæ-ɕʰæmu=je ***vʑæ-ko=je*** ***<sənrə>*** *dæ-ŋuə,* *æ-ŋuə.*
NP-PN=GEN **four-CLF.year=GEN** **birthday** PFV-COP.3 Q-COP.3
The day before yesterday was October 31. It was *nærdʑæ-ɕʰæmu*'s fourth birthday (lit. fourth year's birthday). (RN: chronicle)

Omission of the possessor

When the possessor is obvious from the discourse context, e.g. in the case of body parts of the speaker, the possessor is frequently omitted (5.94). The same applies to kinship regardless of sanguineality (5.95, following page). Geshiza grammar nevertheless does not systematically distinguish between alienable and inalienable possession (see §7.6 for existential verbs where the distinction is lexically relevant). Consequently, a kinship relationship, for instance, may be coded as a possessive, if pragmatic factors call for the need emphasise. In (5.96, following page), a Geshiza folk hero recognises his mother who has come to look for him. Generally, if a possessive relationship in kinship needs to be expressed, the relationship is commonly coded with the associative (5.97, following page; see §5.2.5):

(5.94) ***ɣuə*** *ŋo-pʰə-ræ.*
head be.sick-AUX.CAUS.NPST.3-SENS
It makes (my) head ache. (UA)

(5.95) ***æpa*** *tʰo* *wə-ɕʰoŋ.* *<sæntʂʰaxo>* *wə-ɕʰoŋ.*
father DEM.LOC PFV.DIR-go.PST.1 TOPN PFV.DIR-go.PST.1
We went to (my) father's place. We went to Sanchaihe (a district in Danba County Town). (RN: chronicle)

(5.96) *ɲi=tʰə* ***ŋɛ*** ***æmæ*** *ŋuən=ke* *vsəu=bɔ.*
2SG=TOP **1SG.GEN** **mother** COP.2=DAT seem.NPST.3=MOD
You look like you are my mother! (RN: folktale; see *Appendix IV: List of prominent figures* for the culture hero *æmɲi skældoŋ*)

(5.97) ***ɲi=ntsʰe*** ***rjəu=ke*** *ŋa* *tɕʰoŋ.*
2=ASS.GEN **wife=DAT** 1SG can.NPST.1
I am able (to seduce) your wife. (RN: folktale)

Omission of the head noun
Typologically, many languages do not allow genitive predicates without being accompanied by an overt head (Dryer 2007: 248), e.g. '**This book is my.*' in English. If a head noun X is omitted in Geshiza, the possessor is unable to stand alone, and its slot must be occupied by the demonstrative pronoun/topicaliser *=tʰə* (see §4.5.2): *ŋɛ* X '1SG.GEN X' > *ŋɛ=tʰə* 'mine' (5.98), **ŋɛ* intended meaning 'mine' being ungrammatical in this context. Alternatively, the reflexive-intensifier pronoun *guədə* (see §4.5.5) may be used for emphasis (5.99).

(5.98) *mdzo-ɲo* *wə-ɕʰoŋ=be* *wnæ-rjə* *dæ-ru=be*
noon-after PFV.DIR-go.PST.1=too two-hundred PFV-find.1SG=too

ŋɛ=tʰə *ŋuə-ræ* *sʰo.*
1SG=DEM COP.3-SENS DM
Even if I go (to work as a taxi driver) in the afternoon (only, after spending the time before noon helping others,) and earn 200 yuan, it will be mine. (RC)

(5.99) ***ŋɛ*** ***guədə*** *ŋuə-ræ.*
1SG.GEN **self.GEN** COP.3-SENS
(The money) is mine. (RC; directly after 5.98)

5.5.2. Adjective modifiers

As discussed in the introduction of this chapter, adjective modifiers follow their heads in Geshiza in virtually all documented instances (5.100, next page). Additionally, Geshiza allows an adjective to substitute for the head noun of a noun phrase, the adjective taking the role of NP headship (5.101, next page). In the source materials, such noun phrases always carry the

demonstrative/topic enclitic *=tʰə*. An implicit head noun is often pragmatically clear in such contexts, e.g. *tɕantɕyn* 'general' in the example. Adjectives forming an entire noun phrase without an explicitly stated noun constituent is typologically widely attested (Dixon 2004: 15).

(5.100) *tʰo* ***mkʰær*** ***gæ-tɕʰæ*** *æ-qʰa* *də-ræ.*
DEM.LOC **tower** **ADJZ-big** one-CLF.stick EXV-SENS
There is a big tower there. (MEE)

(5.101) ***dəu~dəu=tʰə*** *gæ-mɛ-ʑe-sʰi* *ŋuə-ræ.*
RED.ADJZ~small=TOP IPFV-ASP.NEG-come.3-NMLZ COP.3-SENS
The small (i.e. young) one did not come (back home). (RN: folktale)

5.5.3. Classifier phrase and enumerative noun phrase

A classifier phrase consists of a classifier (see §4.7) and a numeral (see §4.6), classifiers being unable to occur independently in Geshiza. In most cases, classifier phrases modify a nominal head: N [NUM-CLF], a construction called enumerative noun phrase here (5.102, 5103):

(5.102) ***<məuniu-væ>*** ***æ-ɣi*** *dʑi-ræ* […]
TOPN-NAT **one-CLF.person** EXV.3-SENS […]
There is a person from Maoniu… (RC)

(5.103) *xə* *tɕʰu* ***pʰjəpo*** ***æ-ɣæ*** *dæ-dʑi-sʰi* *ŋuə-ræ.*
DEM CONJ **rich.person** **one-CLF.house** PFV-EXV.3-NMLZ COP.3-SENS
There was a rich household. (RN: folktale)

Classifier phrases and NP headship

In addition, a classifier phrase may take the function of a noun phrase headship without modifying a nominal head. Such noun phrases function as arguments, e.g. as P in (5.104) and S in (5.105, following page). Due to a lacking head noun, the classifier phrase hosts the noun phrase modifiers, such as a relative clause, exemplified in (5.105). It should be noted that an overt anaphoric interpretation is not always possible. For instance, rather than referring back to *vdzi* 'person, man', the classifier *æ-ɣi* 'one-CLF.person' in (5.104) introduces a person assigned to kill a bear to the stage of discourse with no previous reference in the narrative. Consequently, such classifier phrases are interpreted here as true noun phrase heads, rather than noun phrases with abbreviated nominal heads.

(5.104) *e=tʰo=ræ* *wo* *ʑæ-me* *dæ-ŋuə* *tɕʰu* *ŋæ=ɲi*
DEM-DEM.LOC=LNK bear come-NMLZ:S PFV-COP.3 CONJ 1=PL.GEN

<ʂə> =nɔ=ræ	***æ-yi***	*næ-zgru=ræ,*	*e*	*t^ho.*
commune=LOC=LNK	**one-CLF.person**	PFV-assign.3=LNK	DEM	DEM.LOC

A bear came there, so they assigned one person from our commune (to go) there (to kill it). (RN: local history; unspecified subject understood as the authorities; see §2.8.1. *Incorporation into the PRC and modern times* for people's communes in the past)

(5.105)

xo	*tɕæ-wo=ræ*	*tɕ^{h}u*	***æ-yi***	***næ-ndodo-s^{h}i***
DEM.LOC	road-SUPE=LNK	CONJ	**one-CLF.person**	**PFV.DIR.lie.down-NMLZ:S**

dæ-dʑi-s^{h}i	*ŋuə-ræ*
PFV-EXV.3-NMLZ	COP.3-SENS

There was a person lying on the road there (RN: folktale).

Typological remark

Phrase headship of classifiers in the absence of a head noun is a typological attested property in many classifier-prominent languages. Other scholars have interpreted the phenomenon as an instance of headless noun phrases. Supporting the interpretation of phrase headship, (Lu 2012: 202) shows that a classifier phrase without a noun is the most common expression observed in everyday speech and thus unmarked in many Kam-Tai languages.

5.5.4. Distributive noun phrase

Similar to the enumerative noun phrase, Geshiza also has distributive noun phrases in which a classifier or a numeral hosts the distributive prefix *gə-* (glossing: DISTR) 'X amount each'. The phrase takes the following norm: head noun=plural marking *gə*-numeral-classifier in which in addition to the distributive prefix, at least either a numeral or classifier must be present. This is templatically illustrated in (5.106). Distributive prefixation is a feature of Gyalrongic languages, attested also e.g. in Zbu Gyalrong in the form of prefix *k(h)ə-* (Gong 2018: 132).

(5.106)

head noun	plural marking	distributive prefix	numeral	classifier
vo	*=ɲə*	*gə-*		*wmo*
alcohol	=PL	DISTR-		CLF.mouthful
one sip of alcohol each				
k^{h}e		*gə-*	*wne*	
bread		DISTR-	two	
two (loaves of) bread each				
		gə-		*ɕ^{h}u*
		DISTR-		CLF.moment
		one moment each		

The semantics of Geshiza distributives, 'X amount each' by force imply plurality, even in the most common scenario when X has the value 1 (5.107). Other numerical values also occur, but they are less frequently attested in the source materials (5.108). Also, an overt plural marking is sometimes present in the head noun (5.109). This makes distributive noun phrases structurally different from enumerative noun phrases incompatible with number marking (see §5.1. *Constituent dependency*).

(5.107) *xe* *ɲo=væmɲi=ræ* *wne=næ* *jo-væ* *ʈʂʰetsə=ræ*
DEM.GEN after=CONJ=LNK two=DU husband.and.wife car=LNK

gə-lə *roŋ.*
DISTR-CLF.INDEF buy.1SG
Then, we will buy a car for each of the husband and wife. (RC)

(5.108) *braŋgu=dʑe* ***gə-wsʰu-ɾja*** *bɔ* *gə-lə* *dæ-ndzə~dzoŋ.*
TOPN=TOP **DISTR-three-CLF.night** about DISTR-CLF.INDEF PFV-RED~stay.1.
Each of us stayed about three days in Danba County Town. (RC: personal history)

(5.109) *<pʰinko>=ɲə* ***gə-ɾgəu*** *dæ-ŋgoŋ.*
apple=PL **distr-CLF.general** PFV-eat.1PL
We ate an apple each. (RN: chronicle)

To conclude, the pair following example pair illuminates the difference between a distributive and a non-distributive quantity. In the distributive (5.110), each pilgrim offers a gift of 100 yuan to a monastery. This contrasts with the non-distributive (5.111) where the pilgrim group as a whole donates 100 yuan:

(5.110) *ʑpjækʰa=dʑe* ***gə-ɾjə*** *dæ-koŋ.*
gift=TOP **DISTR-hundred** PFV-give.PST.1PL
We gave one hundred yuan each as a gift each. (RN: personal history)

(5.111) *ʑpjækʰa=dʑe* ***æ-ɾjə*** *dæ-koŋ.*
gift=TOP **one-hundred** PFV-give.PST.1PL
We gave one hundred yuan as a gift. (ACC; see 5.110)

Typological remark
Cross-linguistically, distributives frequently co-occur with number marking, which in Corbett's (2000: 111-117) interpretation shows that they are not part of the number system, yet distributives and plural are related notions, since distributives generally imply plurality. As

illustrated above, number and distributive markings are distinct in Geshiza. For this reason, Corbett's typological remark clearly applies to Geshiza as well.

5.5.5. Quantified noun phrase

Quantifiers are typically placed post-nominally in a Geshiza noun phrase. As discussed in §4.5.5, Geshiza has few dedicated quantifiers, such as *tʰæmtɕæ* 'all' requiring post-head placement (5.112). In addition to their independent use, many indefinite pronouns, such as *stæ* 'all, everyone, everything' and *æqɛ* 'all, everyone, everything' may be used to quantify noun phrases (5.113, 5.114). Unlike in noun phrases with adjective modifiers, the quantifier follows number marking in quantified noun phrases.

(5.112) *dæ-lɣa-ra=wo* **e** **mætɔ** **tʰæmtɕæ** *dæ-v-kuæ=ræ*
PFV-be.crazy-REPE=CAUS **DEM** **flower** **all** PFV-INV-cut.PST.3=LNK

mtsʰo=nɔ *næ-ʑua-sʰə-mə-ræ.*
lake=LOC PFV.DIR-throw.3-IFR-EP-SENS
Like having gone crazy, she cut all the flowers and threw them into the lake. (RN: folktale)

(5.113) **lmæ=ɲə** **stæ=wo** *dɔ-məmə.*
3=PL **all=ERG** PFV-discuss.3
They all discussed. (RN: folktale)

(5.114) **æmæ=ræ** **ŋæ=ntsʰe** **lŋa=ɲə** **æqɛ** *<ɕʰoɕʰəu>-ko*
mother=LNK **1=ASS.GEN** **child=PL** **all** school-LOC

wə-v-ɕi-sʰi.
PFV.DIR-INV.take.PST.3-IFR
He took my mother and children to school. (RN: report)

5.6. Apposition

As with many linguistic phenomena, a consensus is lacking concerning the definition of apposition (Bauer 2017: 6). The concept has not received extensive typological treatment. It has mainly received attention only in the Indo-European language family. For the purposes of this grammar, apposition is defined as two or more adjacent nouns or noun phrases that are coreferential, e.g. *my friend Peter*. Appositions exist in Geshiza noun phrase syntax, as illustrated in (5.115-5.117, following page). Apposition typically surfaces in the context of identification of people, e.g. on the basis of kinship or origin. Some instances can be

alternatively reanalysed as compounds, e.g. *bəra(-)groŋ* 'Balang Village'; *məuniu-væ(-)æʑo* 'middle-aged man from Maoniu'. On the other hand, cases like (5.115) clearly cannot. In conclusion, this shows that while appositions are rare in Geshiza, they nevertheless exist in the language, and cannot be analysed out. Future typological research on the topic would greatly benefit from a cross-linguistic analysis of apposition.

(5.115) ***bæ*** ***ŋæ=ɲə=tʰə*** *'mbəzli'* *d-ə-joŋ.*
Tibetan **1=PL=TOP** ritual.tripod PREF-NACT-say.1
We Tibetans call it *mbəzli* (ritual tripod). (RN: ethnographic description)

(5.116) ***pʰəntsʰɔ*** ***<koko>*** ***lməu*** *dæ-læ-pən.*
PN **older.brother** **3.ERG** PFV-LV:release-AUX.CAUS.PST.2
'Older brother' let you drive (his car.). (RC; *koko* used in an extended sense)

(5.117) *mægə* ***<məuniu>-væ*** ***æʑo*** ***æ-ɣi*** *dʑi=me.*
yesterday **TOPN-NAT** **maternal.uncle** **one-CLF.person** EXV.3=MOD
The other day, there is (i.e. was) a middle-aged man from Maoniu (saying…). (RC)

5.7. Noun phrase coordination

Geshiza has two strategies for noun phrase coordination, which also applies to clausal coordination (see §12.2). In juxtaposition, the noun phrases, typically individual nouns, are listed with no manifest linking element. For instance, in (5.118), the speaker is listing some of the items her parents gave to her husband's family as 'dowry'. The second strategy uses the linker enclitic *=ræ* in all enumerated items, except the last. In practice the strategy is used for coordinating two nouns (5.119):

(5.118) […] *<pʰuge>,* *m* *stæn,* *ɣyuen,* *<məutʰæn>* […]
[…] bedclothes HES sitting.pillow pillow blanket […]
Bedclothes, sitting pillows, pillows, blankets... (RN: see §2.4.3 concerning the tradition of *skræ* among the Geshiza)

(5.119) […] ***tɕʰa-jæɣuə=ræ*** *və-jæɣuə* […]
[…] up-rooftop=**LNK** down-rooftop […]
the upper and lower rooftops (RN: procedure; see §2.6.1 concerning the structure of a Geshiza house)

5.8. Summary

This chapter discussed the morphosyntactic properties of Geshiza noun phrases. Many grammatical categories, such as number, associativity, and case operate at phrase-level, rather than in the context of individual words. Geshiza noun phrases may be marked for dual and plural number and for associativity, a related yet distinct grammatical category. Distributivity, a grammatical category related to plural number, is coded with a distributive prefix. The language has a wide range of case enclitics for coding semantic roles. Noun phrases are also frequently marked with discourse enclitics occurring frequently in conversation. The language has one genitive construction that does not systematically differentiate between alienable and inalienable possession, but has a wide functional range. Finally, relative modifiers show both pre-head and post-head distribution.

CHAPTER SIX
Word formation

This chapter addresses word formation in Geshiza, thus complementing the primarily formal discussion on Geshiza word classes and their inflectional morphological properties in chapter 4: *Word classes*. Herein I follow the traditional approach in word formation, namely the division of word formation processes into derivation and compounding (Aikhenvald 2007b: 1). The chapter commences with delineating inflection, derivation, and compounding in Geshiza (§6.1). Following, the bulk of discussion concerns the derivative processes (§6.2)and compounding (§6.3) with focus on the abundant nominal compounds, but also touching the subject of incorporation, a marginal phenomenon in Geshiza. A summary of the central findings is offered at the end of the chapter (§6.4).

6.1. Delineating inflection, derivation, and compounding

Before addressing word formation in Geshiza, the relationships between inflection, derivation, and compounding must be explored. Distinguishing between derivation and inflection that often have ambiguous boundaries can be difficult, and the issue is one of the traditional problems concerning morphological research (ten Hacken 2014: 10). In a similar fashion, compounding and derivation also require delineation (Olsen 2014).

As an analytical procedure to classify a Geshiza multi-morphemic word that is not the result of univerbation, the best way is to place it through binary steps in a matrix of inflection, derivation, and compounding. If a given multi-morphemic word is not a compound, it is a non-compound with two possibilities: inflection and derivation. This is illustrated in Figure 6.1 below:

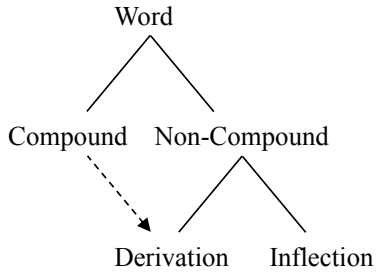


Figure 6.1. Relationships between compounding, inflection, and derivation in Geshiza

Compounding forms new lexemes through adjoining two or more lexemes (Bauer 2003: 40). Consequently, compounding and non-compounding processes can be delineated synchronically in Geshiza as follows. In the former, both elements are lexemes, while the latter includes a lexeme and a formative, e.g. an affix. Diachronically this neat picture emerges as more complex, since some suffixes (see §4.2.5 for the historical nominal affixes) originate from compounding, which makes delineating compounding and derivation challenging on occasion. This historical relationship is indicated by the dashed arrow line in the figure.

Non-compounding can be either derivation or inflection. In this grammar, I define derivation as a word-formation process that constructs new words with new meanings. It contrasts with inflection that modifies words with respect to particular grammatical categories, such as number or gender, in a paradigmatic way. Inflectional morphology has also been described as generally more productive than derivational morphology (Aronoff and Fudeman 2005: 161). To illustrate the difference between the two, the verb forms *ŋɣædzo-ŋ* 'I/we stumble' and *ŋɣædzo-n* 'You stumble' share a core meaning and stand in a paradigmatic inflective relationship concerning the grammatical category of person, thus qualifying the paradigmatic suffixes *-ŋ* and *-n* as prototypically inflectional. In contrast, the verb *ŋo* (V2b) 'to be sick' and the noun *ŋo-me* (sick-NMLZ:S) 'sick person' not only greatly differ in their core meanings and word classes, but also lack a shared grammatical category in which they are paradigmatically assigned different values, which makes the case a clear example of derivation. As seen, Geshiza derivational processes frequently change the word class of the output, but this is not a necessary condition for a process to be considered derivational, since noun > noun and verb > verb derivations exist in the language. Also, most Geshiza derivational processes are characterised by low productivity, reflecting the general trend in the language towards morphological simplification in a language-contact situation (see §2.9.4 on the future of Geshiza).

Distributional criteria also help in distinguishing derivation and inflection. Typologically, in languages with both derivational and inflectional affixes, the former attach closer to the word root (Greenberg 1963: 93). Geshiza conforms to this typological tendency. However, even though the typological tendency works neatly post factum, it has limited practical value when initially researching an unknown language where many features of the grammar are unknown.

6.2. Derivation

This section addresses derivation in Geshiza and is mainly organised according to the source category. Nouns and verbs serve as the source categories, while the primary outputs of derivation are nouns, verbs, classifiers, and adjectives. The structure of the following discussion is divided into an overview of derivation (§6.2.1); denominal derivation (§6.2.2); deverbal derivation (§6.2.3); and conversion (§6.2.4). While conversion could be split into denominal and deverbal derivation on the basis of conversion type discussed, all conversion is treated in a dedicated section for the sake of simplicity.

6.2.1. Overview of derivation

Derivation can be approached either from the viewpoint of the source word class (e.g. denominalisation) or target word class (e.g. classifierisation). Derivational devices are either category-preserving or category-changing; the latter involves a change in word class (Aikhenvald 2007b: 40-44). Geshiza has both category-preserving and category-changing derivation. Table 6.1 below summarises the principal derivational devices in Geshiza from the viewpoint of the source category, the approach adopted in this chapter. Derivative formatives deemed productive are written in bold in the table. As already mentioned, most derivational processes have become unproductive in Geshiza. Like in the case of Tibetan (Hill 2014: 621), it is difficult to determine when a derivative formative was productive. Here productivity is defined both in terms of creativity and quantity. First, productive formatives form novel creations regardless of their stability and dispersion in the linguistic community, e.g. *tiænləu* 'computer' > *tiænləu-lŋa* 'tablet computer' (diminutivisation with *-lŋa*), *fənlæn* 'Finland' > *fənlæn-væ* 'Finnish person' (nativity noun derivation with the suffix *-væ*). Second, in quantitative terms, a productive derivational formative creates hundreds of derivations. As it is typologically common, complete productivity is rarely achieved even with productive derivational formatives due to semantic restrictions. With these two criteria, all Geshiza derivative formatives can be categorised in a binary fashion without ambiguity.

Table 6.1. Main derivational devices in Geshiza (productive devices in bold)

Derivation type	Categories involved	Derivations
Denominal	noun > noun	diminutivisation *(-zi, -**lŋa**)*
		nativity and source (***-væ***)
		agentive *(-me, -pa, -q^{h}ua)*
		locative (*-ko*)
		collectivisation (*æ-*)
		generalisation (*partial reduplication*)
	noun > verb	verbalisation (*N-*, *s/z-*)
Deverbal	verb > noun	semelfactive noun (***æ-***)
		nominalisation (***-me, -s^{h}i***, *-q^{h}ua*, ***-ʑæ, -je, -t^{h}oŋ, -ko,*** *-pa****, special non-argument nominalisations,*** *zero derivation, reduplication*)
	verb > adjective	adjectivisation (***gæ-, reduplication***)
	verb > verb	valency-changing derivation (*s/z-, ɲjæ-, N-, N-, a̱-, voicing alternation*)
		repetitive verb derivation (*1V- ~rV-*)
Conversion	verb and noun	verb conversion (*zero-derivation*)
	verb and noun, classifier	classifierisation (*zero-derivation*)

From a formal viewpoint, Geshiza derivational morphology uses affixing (prefixes and suffixes) and morphological processes (reduplication, voicing alternation, and conversion, also known as zero-derivation). Most derivative formatives are category-specific, i.e. they apply only to one word class. Nevertheless, six derivative affixes attach to both nouns and verbs, listed in Table 6.2. Since in terms of type frequency, each affix primarily adjoins a verb as the source, deverbal derivational function is interpreted as the primary one. To illustrate, the suffix *-ko* derives locational nouns from nouns in addition to its primary function as a locative nominaliser with verbs as the source category: *va* 'pig' > *va-ko* 'pigsty'; *rgə* (V2b) 'to sleep' > *rgə-ko* 'sleeping place, hotel'. As the example illustrates, strong semantic and functional links between both uses exist.

Table 6.2. Derivational affixes with both nouns and verbs as hosts

Affix	Noun as source	Verb as source
-ko	> locative noun	> locative nominalisation
-me	> agentive noun	> agent nominalisation
-pa	> agentive noun	> agent nominalisation
-q^{h}ua	> agentive noun	> agent nominalisation
N-	> denominal verb	> autobenefactive and applicative verbs
s/z-	> denominal verb	> causative verb

Before discussing derivation by the source category, all major formative devices are summarised in Tables 6.3 and 6.4 (following page). The locus of denominal derivation is either prefixal, suffixal, or concerns the stem. Deverbal derivation follows this pattern, except that there are two suffixal derivative slots: suffix 1 and suffix 2. Finally, cumulative derivation is allowed in Geshiza: *bjo* 'to fly' > *bjo-la* (fly-REP) 'to fly (repetitive)' > *bjo-la-me* (fly-REP-NMLZ:S) 'one who flies (e.g. a human-like flying mythical creature)'.

Table 6.3. Denominal derivation in Geshiza

Prefix	Stem	Suffix
æ- > collective noun	Σ~RED > generalised noun	*-lŋa* > diminutive noun
N- > denominal verb	zero derivation > verb	*-zi* > diminutive noun
s/z- > denominal *v*erb	conversion	*-væ* > inhabitant noun
		-me > agentive noun
		-pa > agentive noun
		-q^{h}ua > agentive noun
		-ko > locative noun

Table 6.4. Deverbal derivation in Geshiza

Prefix	Stem	Suffix 1	Suffix 2
æ- > semelfactive noun	zero derivation >	*IV- ~rV-*	*-me* > agent NMLZ
gæ- > adjective	action NMLZ	repetitive	*-q^{h}ua* > agent NMLZ
s/z- > causative	Σ~RED > action NMLZ	aspect	*-s^{h}ɪ* > agent NMLZ
ɲjæ- > reflexive	RED~Σ > adjective		*-ʑæ* > patient NMLZ
N- > autobenefactive	voicing altern.		*-je* > instrument NMLZ
N- > applicative	> anticausative verb		*-ko* > locative NMLZ
			-t^{h}oŋ > manner NMLZ

6.2.2. Denominal derivation

In addition to verbs discussed in §6.2.3, nouns are the other main source category in Geshiza derivation. Geshiza denominal derivations consist of diminutives (§6.2.2.1); nativity and source nouns (§6.2.2.2); agentive nouns (§6.2.2.3); locative nouns (§6.2.2.4); verbalisation (§6.2.2.5); collective nouns (§6.2.2.6); and generalised nouns (§6.2.2.7). The language lacks a derivative process for producing abstract quality nouns, e.g. 'beauty, goodness', either from adjectives or from stative verbs (see §6.3.3 concerning coordinate compounds of antonymic stative verb pairs).

6.2.2.1. Diminutive suffixes *-zi* and *-lŋa*

Diminutive formation has been classified as both inflection and derivation in previous research, and the status of diminutives varies across languages (ten Hacken 2014: 25). In Geshiza, diminutivisation is best interpreted as a derivative process. The language has two diminutive Suffixes, *-lŋa* and *-zi,* that both derive diminutive nouns.

The old diminutive suffix *-zi* (glossing: DIM) has both very low productivity and occasional unpredictable semantics in its output forms. Also, even though the new diminutive suffix *-lŋa* is highly productive and more inflection-like, some output forms are nevertheless semantically unpredictable in part. For these reasons, diminutive formation in Geshiza qualifies for derivation.

The old diminutive suffix *-zi* occurs in both animate and inanimate contexts. It can be traced etymologically back to PTH *za 'child, son'. The self-standing source word *-zi* 'male child, son' is even now used as a synonym for *bəʑə* 'son, young man'. The word thus exhibits a regular grammaticalisation pathway from a word denoting child into a diminutive marker (Heine & Kuteva 2002: 65). Demonstrating its ancient nature, the diminutive *-zi* requires the compound stem (see §4.2.6) from the host noun it attaches to. Unlike *-lŋa* to be introduced below, *-zi* is highly unproductive and eight formations were identified in the source materials, all listed in Table 6.5 on the following page:

Table 6.5. Diminutive derivation with *-zi*

Source noun	Gloss	Diminutive	Gloss
ɣæ	door, gate	*ɣæ-zi*	small gate (e.g. in the pigsty)
lŋa ~ lŋæ-	child	*lŋæ-zə*	infant
q^{h}uə	bowl	*q^{h}uə-zi*	bowl
va ~ væ-	pig	*væ-zi*	piglet
vtɕə	mouse	*vtɕə-zi*	short person, midget (offensive)
vʑæ	tongue	*vʑæ-zi*	uvula
wdo ~ wdæ-	bucket	*wdæ-zi*	milking bucket
n/a	n/a	*bər-zi*	knife

The diminutive *vtɕə-zi* with the expected original meaning 'little mouse' is now used metaphorically as an offensive way for referring to a very short person. In contemporary Geshiza, the new productive diminutive suffix *-lŋa* is used for a small mouse: *vtɕə-lŋa*.

Some nouns that historically include the old diminutive suffix *-zi* have mostly lost their diminutive status. For instance, even though *bər-zi* 'knife' includes the diminutive suffix *-zi,* it is nevertheless seen as non-compositional lexical item by the Geshiza. In other words, the non-diminutive form **bər-* has completely disappeared from the language as a free morpheme. Since *bər-zi* now refers to a knife of any size, *bər-zi-lŋa* 'small knife' has become the new word for small knives, thus exhibiting double diminutive suffixation from a historical viewpoint. The situation with *q^{h}uə* and its diminutive *q^{h}uə-zi* differs somewhat. Even though *q^{h}uə* 'bowl' still appears in Geshiza as a free morpheme, it is giving way to the far more frequent *q^{h}uə-zi,* both having approximately the same meaning. Finally, the old diminutive suffix *-zi* takes an irregular form in *lŋæ-zə* (baby-DIM) 'infant'. In sum, the old diminutive suffix *-zi* has undergone semantic erosion in Geshiza, leading to the emergence of *-lŋa* a new productive diminutive suffix.

The new diminutive suffix *-lŋa* (glossing: DIM) originates from the independent noun *lŋa* 'baby' and is used as the standard diminutive marker in Geshiza, illustrated in Table 6.6 on the following page. Its grammaticalisation pathway from an independent noun 'child' into a diminutive suffix converges with *-zi.* In everyday language, *-lŋa* is common among animate nouns: *sk^{h}rəu* 'ant' > *sk^{h}rəu-lŋa* 'small ant'. The suffix, however, has become completely grammaticalised and taken over the all functional load from the diminutive *-zi* in forming new diminutives. Consequently, it also derives inanimate diminutives: *pæntən* 'chair' > *pæntən-lŋa* 'stool, small chair (typically used by children)'.

While diminutives by *-lŋa* exhibit higher semantic transparency in comparison to historical diminutives by *-zi*, less compositional forms that must be saved as full entries in the mental lexicon nevertheless exist, which gives justification for classifying all diminutivisation in Geshiza as a derivative, rather than an inflectional, process. To illustrate: *noɣuə* 'finger', *noɣuə-lŋa* 'little finger (of the five fingers)'; *ɾjəu* 'wife', *ɾjəu-lŋa* 'daughter-in-law'.

Table 6.6. Diminutive derivation with *-lŋa*

Source noun	Gloss	Diminutive	Gloss
smæŋa	girl, young woman	*smæŋa-lŋa*	little girl
bəʑə	boy, young man	*bəʑə-lŋa*	little boy
rji	horse	*rji-lŋa*	pony
kəta	dog	*kəta-lŋa*	puppy
tsələ	cat	*tsələ-lŋa*	kitten
kærku	window	*kærku-lŋa*	small window
pæntən	chair	*pæntən-lŋa*	little chair
rastu	egg	*rastu-lŋa*	little egg
s^{h}i	tree	*s^{h}i-lŋa*	sapling
tsaloŋ	bag	*tsaloŋ-lŋa*	little bag

Marginal cases of diminutive derivation:

Additionally, Geshiza uses two dedicated diminutive suffixes in baby talk (glossing: HYPO): *-lulu* 'hypocoristic suffix for solid food' and *-papa* 'hypocoristic suffix for liquids', as in *mbrɛ-lulu* 'rice (baby talk)' and *dʑa-papa* 'tea (baby talk)'. Both suffixes have very low productivity (see §14.4.1 for baby talk).

Jacques (2019a: 61) proposes a highly unproductive historical diminutive suffix *-li* attested in two instances in Japhug. The fossilised suffix occurs in Geshiza as an alternative for *-lŋa* in *rguæ-lŋa* calf, young cow; *guæ-le* 'ibid.'. The word *guæ-le* originates from **rguæ-le* 'cow-DIM' with dropping of the preinitial consonant. Unlike occasional preinitial dropping that is widely spread in Geshiza and discussed in §3.5.1, the presence of the preinitial is now considered incorrect in the word. No further traces of the possible historical diminutive marker are visible in the source materials.

6.2.2.2. Nativity and source suffix *-væ*

The nativity and source suffix *-væ* (glossing: NAT) productively derives inhabitant nouns or ethnonyms regardless of gender with the semantics 'person from N, person belonging to the ethnicity of N'. This function is etymologically related to non-productive fossilised use of *-væ* as a historical nominal suffix (see §4.2.5), originating from the PTH *wa 'man'. The suffix is productive in its lexical niche, i.e. toponyms and ethnonyms. The ethnonyms *bæ* 'Tibetan' and *rdʑæ* 'Chinese' constitute an exception and never appear suffixed: **bæ-væ* with the intended meaning 'Tibetan' and **rdʑæ-væ* with the intended meaning 'Chinese'. The interrogative *lot^{h}o* 'where, from where' can also be suffixed, deriving the nativity and source interrogative pro-form *lot^{h}o-væ* 'person from where' (see §4.5.3). Table 6.7 on the following page further illustrates inhabitant noun and ethnonym derivation in Geshiza:

Table 6.7. Nativity noun derivation in Geshiza

Source noun	Gloss	Inhabitant noun	Gloss
bəra	Balang (village)	*bəra-væ*	person from Balang
bəq^{h}o	Buke (village)	*bəq^{h}o-væ*	person from Buke
taʈʂɛ	Dazhai (village)	*taʈʂɛ-væ*	person from Dazhai
jintu	India	*jintu-væ*	Indian
lolo	Yi (ethnicity)	*lolo-væ*	person of the Yi ethnicity
stæwə	Daofu (county)	*stæwə-væ*	person from Daofu

6.2.2.3. Agentive suffixes *-me, -pa, -q^{h}ua*

With extremely low productivity, the suffixes *-me*, *-pa*, and *-q^{h}ua* derive agentive nouns with the semantics 'N-er'. In addition to their marginal role in denominal (N > N) derivation, the suffixes *-me* and *-q^{h}ua* are primarily used in verb nominalisation (see §6.2.3.1). The agentive suffixes *-me* and *-pa* are semantically neutral while *-q^{h}ua* has a pejorative connotation. All attested instances of the rare agentive noun derivation outside the domain of Chinese loanwords are listed in Table 6.8 below, the pejorative suffix *-q^{h}ua* appearing most frequently:

Table 6.8. Agentive noun derivation in Gezhiza

Root noun	Gloss	Derivation	Gloss
bələn	debt	*bələn-q^{h}ua*	heavily indebted person
ŋo~ŋa	sickness (NMLZ)	*ŋo~ŋa-q^{h}ua*	person often sick
rnævɕæ	speaking ill behind s.o.'s back	*rnævɕæ-q^{h}ua*	back-stabber (metaphorical)
væjæ	bad behaviour when drunk	*væjæ-q^{h}ua*	misbehaving drunk
wɕa	flatulence	*wɕa-q^{h}ua*	frequently flatulating person
leska	manual work	*leska-pa*	manual worker
s^{h}ævle	house building	*s^{h}ævle-pa*	house builder
s^{h}ævle	house building	*s^{h}ævle-me*	house builder
mdʑurten	not attested independently	*mdʑurten-me*	ordinary person

Three of the host nouns are Tibetan loanwords: *leska* 'manual work'< WT *las ka* 'work'; *bələn* 'debt' < WT *bu lon* 'debt'; and *mdʑurten,* a stem not attested independently in Geshiza < WT *'jig rten* 'wordly, mortal, ordinary'. The last instance is particularly interesting due to the existence of WT *'jig rten pa* 'worldly, mundane, or ordinary person' that includes the Tibetan agentive suffix *-pa*. When the word *'jig rten pa* was borrowed into Geshiza, the original Tibetan agentive suffix was replaced with Geshiza *-me*. In any case, loanwords in Geshiza constitute a special domain for the non-deverbal use of the agentive suffixes.

Nounoids *rnævɕæ* 'speaking ill behind someone's back', *væjæ* 'bad behaviour when drunk', and *sʰævle* 'house building' might have historically been verbs (see Lai 2017: 241 for illuminating data from Wobzi Khroskyabs). With no further evidence, however, attempting to connect all non-deverbal instances of *-qʰua* outside the scope of loanwords to the word class of verb lacks support. The forms in the Table are thus best interpreted as an exceptional, secondary uses of the suffix *-qʰua*. The same applies to the four instances of *-pa* and *-me*.

The agentive suffix -pa *in Chinese loanwords*

The agentive suffix *-pa* more frequently attaches to Chinese loanword nouns to derive agent nouns (Table 6.9). As discussed in §14.3.2, Chinese lexical items are typically borrowed as nouns into Geshiza.

Table 6.9. Agentive nouns derived from Chinese loans

Source and the Geshiza loan	Geshiza and Chinese glosses	Geshiza derivation
tsʰæntɕa	Ge. participation	*tsʰæntɕa-pa*
cānjiā 参加	< Ch. to participate	'government official'
kuntso	Ge. working	*kuntso-pa*
gōngzuò 工作	< Ch. to work	'person with a govt. job'
nijo	Ge. touring	*nijo-pa*
lǚyóu 旅游	< Ch. tour, tourism	'tourist'
kʰunnæn	Ge. financial difficulty	*kʰunnæn-pa*
kùnnan 困难	< Ch. difficult	'poor person'

Finally, being wide-spread in Trans-Himalayan languages, an agentive suffix *-pa* is also present in Tibetan, manifesting itself in many Tibetan loanwords in Geshiza. Nevertheless, in such cases, the agentive suffix *-pa* has been borrowed in situ and is not part of Geshiza morphology. For this reason, Tibetan loanwords, such as *græpa* 'novice monk' < WT *grwa pa* 'novice monk' fail to qualify as agent noun derivations in Geshiza.

6.2.2.4. Locative suffix *-ko*

The locative suffix *-ko* (glossing: LOC) has two related functions in Geshiza. It derives locative nouns from other nouns with the meaning 'the place of N' and appears frequently with zoonyms as the hosts, as shown in Table 6.10 on the following page. Geshiza locative nominalisation of verbs also applies the same suffix (see §6.2.3.1). Like in the case of agentive nouns (see §6.2.2.3), the deverbal use constitutes the core function of the suffix. The locative suffix *-ko* attaches to the main, (i.e. not to a dedicated compound stem) of its host noun: *ji ~ jæ-* 'sheep' > *ji-ko* 'sheep barn, sheepfold'. From its transparent semantics, it is postulated that historical meaning of *-ko* is spatial noun with an approximate meaning of 'place'.

Table 6.10. Locative noun derivation in Geshiza

Root	Gloss	Suffixed form	Gloss
rgo	cow	*rgo-ko*	cow barn
læʑə	cow fodder	*læʑə-ko*	place for storing cow fodder
ji	sheep	*ji-ko*	sheep barn, sheepfold
k^{h}ji~k^{h}ja	drying (NMLZ)	*k^{h}ji~k^{h}ja-ko*	place for drying clothes
ndʑælk^{h}a	sightseeing	*ndʑælk^{h}a-ko*	lookout, viewing platform
rɔtɔ	millstone	*rɔtɔ-ko*	grinding room, mill
rtæ-	horse	*rtæ-ko*	stable
skærva	pilgrimage	*skærva-ko*	place for pilgrimage
va	pig	*va-ko*	pigsty
zgrəmbə	coffin	*zgrəmbə-ko*	grave
ʐjə~ʐjæ	selling (NMLZ)	*ʐjə~ʐjæ-ko*	kiosk, small rural shop

The locative suffix *-ko* also appears with the postposition *bær-ma* 'among, between, while' in *bær-ko* 'name of a room in Geshiza house', lit. 'middle-place' (see §2.6.1 for the structure of Geshiza houses and §6.3.1 for frequent deletion of historical suffixes in compounding). As discussed in §4.8, postpositions are part of macro-nominals and exhibit properties close to what are known as relator nouns in the literature.

Finally, in two cases the locative suffix *-ko* also appears in a non-derivative function in nouns denoting a place: *ɕ^{h}oɕ^{h}əu* 'school' > *ɕ^{h}oɕ^{h}əu-ko* 'school'; *tɕ^{h}ævsaŋ* 'toilet' > *tɕ^{h}ævsaŋ-ko* 'toilet' In this function, it is never obligatory, but merely reinforces the locative meaning. Both attested cases are loanwords: *ɕ^{h}oɕ^{h}əu* < Ch. *xuéxiào* 学校 'school'; *tɕ^{h}ævsaŋ* < Tib. *chab gsang* 'toilet', which may explain why locativity is reinforced with the suffix.

6.2.2.5. Verbalising prefixes *N-* and *s/z-*

Verbalisation is the only category-changing denominal derivation type in Geshiza. It has very low productivity, all attested instances listed in Table 6.11 on the following page. The language includes two verbalising prefixes *N-* and *s*/z- (glossing: VBLZ) used for deriving verbs. Strikingly, these prefixes also appear in the verbal template, coding the autobenefactive and applicative (*N-*), and the causative (*s*/z-). Dixon (2012: 242-243) argues that an affix sharing the form with a causative derivation affix can derive transitive verbs with causative-type meanings in some languages. This appears to have formerly been the case in Geshiza as well. Cognates for *N-* and *s/z-* exist in Wobzi Khroskyabs (Lai 2017: 523, 526) and in Japhug (Jacques 2014). While *N-* in Geshiza derives both non-stative intransitive (classes 1b, 2b) and transitive (classes 3b, 4) verbs, *s/z-* derives transitive verbs. It should be noted that even though *s-məu* (V2b) 'to close the eyes' derived from *məu* 'eye' is morphologically transitive, it takes two arguments and behaves syntactically like a transitive verb (see §7.3.3 for the semi-transitive clause).

Table 6.11. *N-* and *s/z-* verbalisations in Geshiza

Noun	Gloss	Verbalisation	Gloss
dəu	poison	*n-dəu* (V2b)	to be poisoned
gædə	morning	*ŋ-gædə* (V2b)	to do sth in the morning
gogo	sharing	*ŋ-gogo* (V2b)	to share
vʑæ	tongue	*n-ʑæ(-la)* (V4)	to lick
dʑælæ	skin	*n-dʑælæ* (V1b)	to peel off (old skin)
jɔpa	spreader	*ɲ-jɔpa* (V3b)	to spread with a spreader
ts^{h}ægzə	clothes	*n-ts^{h}ægzə* (V2b)	to dress up
zærzær	beautifully clothed	*n-zærzær* (V2b)	to be beautifully clothed
zəva	*zəva*-ritual	*n-zəva* (V3b)	to perform the *zəva*-ritual
bət^{h}a	stick	*z-bət^{h}a* (V4)	to hit with a stick, spank
bi	stick	*z-bi* (V4)	to hit with a stick, spank
kærkær	circle	*s-kærkær* (V4)	to go around, take a roundabout way
məu	eyes	*s-məu* (V2b)	to close the eyes

Verbalisation of reduplicated adjectives

Verbalisation also concerns reduplicated adjectives that belong to macro-nominals, illustrated in Table 6.12 on the following page. The archiphoneme prefix *N-* that assimilates into its host in terms of place of articulation appears with reduplicated adjectives to derive stative verbs of the classes 1b and 2b. To illustrate, *bær~bær* 'low, short (vertically)' serves as the base for the intransitive verb *m-bær~bær* (V3b) 'to bend the upper body'. In a similar fashion, the prefix *s/z-* equally adjoins the reduplicated adjectives and derives transitive verbs of the classes 3b and 4. For example, *pær~pær* 'flat' derives into *s-pær~pær* (V4) 'to crush, make flat'.

Since reduplicated adjectives originate from verbs, the derivation returns the word form into its original word class with the feature of stativity lost: stative verb > reduplicated adjective > non-stative verb. As discussed above, depending on the used derivational prefix, the end outputs are thus either non-stative intransitive verbs or transitive verbs. As illustrated in the table, occasionally both intransitive and transitive verbalisations exist from the same source adjective. Nevertheless, the two derivations do not always occur together.

The process of reduplicated adjective verbalisation has a very low level of productivity and cannot be applied to most reduplicated adjectives, e.g. *lo~lo* 'hot' > **n-lo~lo* or **z-lo~lo,* intended meanings 'to become hot', to make hot', respectively. Against the list of attested reduplicated adjectives of Geshiza (see §4.4.3), only those of dimension are applicable for verbalisation. Also, being subject to verbalisation in a noun-like manner provides a yet another piece of evidence to support the view of 'macro-nominals' (see §4.1) including nouns and closely related word classes.

Table 6.12. Verbalisation of reduplicated adjectives

Verb and adjectivisation	*N-* verbalisations	*s/z-* verbalisations
bær (V1a) to be low, short vertically > *bær~bær* (ADJ)	*m-bær~bær* (V2b) 'to bend the upper body'	*z-bær~bær* (V3b) 'to make low(er)
bə (V1a) 'to be thin (surfaces)' > *bə~bə* (ADJ)	*m-bə~bə* (V1b) 'to become thin(ner)'	*z-bə~bə* (V3b) 'to make thin(er)'
lt^{h}ə (V1a) 'to be straight' > *lt^{h}ə~t^{h}ə* (ADJ)		*s-t^{h}ə~t^{h}ə* (V3b) 'to straighten'
pær (V1a) 'to be flat' > *pær~pær* (ADJ)		*s-pær~pær* (V4) 'to crush'
qæl (V1a) 'to be concave' > *qæl~qæl* (ADJ)	*ɴ-qæl~qæl* (V1b) 'to cave in'	
rɣo (V1a) 'to be bent, curved' > *rɣo~rɣo* (ADJ)		*z-ɣo~ɣo* (V3b) 'to bend'
ro (V1a) 'to be narrow' > *ro~ro* (ADJ)	*n-ro~ro* (V1b) 'to become narrow(er)'	*z-ro~ro* (V3b) 'to make narrow(er)'
ts^{h}o (V1a) 'to be thin' > *ts^{h}o~ts^{h}o* (ADJ)	*n-ts^{h}o~ts^{h}o* (V1b) 'to get thin(ner)'	
tɕ^{h}e (V1a) 'to be narrow, thin' > *tɕ^{h}e~tɕ^{h}e* (ADJ)	*n-tɕ^{h}e~tɕ^{h}e* (V1b) 'to become narrow(er)'	*s-tɕ^{h}e~tɕ^{h}e* (V3b) 'to make narrow(er)'

Exceptional case

The ideophone *wər~wər* '1. speaking fast, 2. passing fast (time), 3. eating quickly' hosts the prefix *z-* in a verbalisation: *z-wər~wər* 'to speak very fast'. If significantly more non-nominal instances of verbalisations with the prefixes *N-* and *s/z-* are found in future research, the prefixes will need to be relabelled more accurately as verbalisers with a wider functional range.

6.2.2.6. Collectivising prefix *æ-*

The collectivising prefix *æ-* (glossing: COLL) forms denominal collective nouns with the semantics 'all members of pertaining to the host noun': for instance, *qlo* 'valley' > *æ-qlo* 'whole valley'. Such collective derivation exhibits a very low level of productivity, all encountered examples in the source materials listed in Table 6.13 on the following page. The collectivising prefix *æ-* is etymologically related to the bound numeral prefix *æ-* 'one' (see §4.6.1. *Bound numeral prefix æ-*) used together with classifiers. Collective nouns, however, allow no other numerals: e.g. **wnæ-qlo* with the intended meaning 'two whole valleys, all the people in two valleys'. The collective derivation of *qa* 'mountain' > *æ-qa~qa* 'mountain range' is exceptional, since in addition to prefixation, reduplication of the noun *qa* 'mountain' is also required to form a grammatically correct collective: cf. **æ-qa* 'intended meaning: mountain range'.

Table 6.13. Collective derivation by the prefix *æ-*

Base form	Gloss	Collective	Gloss
groŋ	village	*æ-groŋ*	whole village, all villagers
rəvæ	villager	*æ-rəvæ*	all villagers
stɕəpa	people in the village	*æ-stɕəpa*	all people in the village
qlo	valley	*æ-qlo*	whole valley, all people in the valley
qa	mountain	*æ-qa~qa*	mountain range

6.2.2.7. Generalised noun derivation by reduplication

Reduplication plays no prominent role in Geshiza nominal morphology. In a limited number of cases, the pattern N~RED is applied together with a vowel change in the right-hand element to derive nouns with collective-general meanings: 'all N, various kinds of N'. The resulting reduplication cannot be used to refer to a single entity only. To illustrate, *mbrə* 'cereals' > *mbrə~mbræ* 'all kinds of cereals, cereals in general'. Generalising reduplication has very low productivity, and the formation process cannot be applied at whim: *zgre* 'star' > **zgre~zgra* intended meaning 'all kinds of stars', *tɕe* 'hat' > **tɕe~tɕa* intended meaning 'all kinds of hats'. Table 6.14 lists all attested general nouns derived through reduplication. Among the four instances, the noun *ts^{h}ægzə* 'clothes' exhibits only partial reduplication: *ts^{h}ægzə~zgæ* 'all kinds of clothes'. Further evidence from the verbal system (see §4.3.5.5) indicates that historically in Geshiza, full reduplication has been a property of monosyllabic lexemes, bisyllabic lexemes undergoing partial reduplication.

Table 6.14. Nominal reduplication in Geshiza

Base form	Gloss	Collective Reduplication	Gloss
k^{h}ue	room	*k^{h}ue~k^{h}ua*	all rooms
ts^{h}ɛ	vegetables	*ts^{h}ɛ~ts^{h}a*	all kinds of vegetables
mbrə	cereals	*mbrə~mbræ*	all kinds of cereals
ts^{h}ægzə	clothes	*ts^{h}ægzə~zgæ*	all kinds of clothes

The vocalisation of the reduplicated element differs from the source stem. Due to a limited amount of available cases, generalising a rule remains difficult, but it appears identical to that of reduplicative nominalisation (see §6.2.3.1). For the limited instances, the reduplication of the final syllable can be described as CV{e, ɛ} → CV{e, ɛ}~CVa; CV{ə} → CV{ə} ~CVæ.

The reduplication of the disyllabic *bəʑo* insect', *bəʑo~bərbe* 'all kinds of insects' is irregular. Historically, *bəʑo* is a compound with the retrievable component *bə-* 'insect' that is still used in many insect names in contemporary Geshiza: e.g. *bə-tɕəu* 'centipede'. This may explain its idiosyncratic behaviour in reduplication.

6.2.3. Deverbal derivation

The following subsections discuss deverbal derivation in Geshiza. The language has three productive deverbal derivation types: nominalisation (§6.2.3.1); adjectivisation (§6.2.3.2); and semelfactive noun derivation (§6.2.3.3). Valency-changing derivative processes have become unproductive in the language, including causativisation (§6.2.3.4); anticausativisation (§6.2.3.5); intransitivisation (§6.2.3.6); autobenefactivisation (§6.2.3.7); applicativisation (§6.2.3.8); and reflexivisation (§6.2.3.9). Synchronically, these devices form a paradigmatic slot in the verb morphology, also including the inverse prefix *v-* (see §4.3.3.2). Since the prefixes are mutually exclusive, only one prefix from the slot may appear at a time. Finally, separate from the paradigmatic prefixes introduced above, a repetitive verb derivation process is postulated to have existed in Geshiza (§6.2.3.10).

6.2.3.1. Nominalisation

Nominalisation refers to the process of producing a noun from an originally non-noun word. All nominalisations in Geshiza originate from verbs. As in many Trans-Himalayan languages, they feature prominently in building relative clauses, discussed in §12.5. The division of the two in structure of this grammar results from the systematically following the adopted approach, namely introducing forms, followed then by their functions. In a Horpa language grammar that takes a language-internal approach, nominalisations and their functions could be better treated as a unified topic.

Geshiza is rich in nominalisations that can broadly be divided into argument nominalisation, action nominalisation, and special non-argument nominalisation. The first two kinds correspond to Comrie and Thompson's (2007: action nominalisation and argument nominalisation. The authors argue that the former retain certain properties of the word class from which they are derived, but the latter exhibit syntactical behaviour similar to other nouns in the language. Special non-argument nominalisations are nominalisations with highly specific semantics that form complex predicates with the light verb (see §4.3.7.1 for more). The available nominalisations are listed in Table 6.15 on the following page. The nominalisers in the language are predominantly suffixes, but zero derivation and reduplication also play a minor role.

From a paradigmatic viewpoint, nominalisers in Geshiza are mutually exclusive and thus never exhibit multiple cooccurrence. Consequently, *s^{h}æ-me t^{h}o* (die-NMLZ:S DEM.LOC), and not, for example, **s^{h}æ-me-ko* (die-NMLZ:S-NMLZ:LOC) is used for 'the place where a person has died'.

Derivational nominalisation in Trans-Himalayan languages generally produces both lexical nouns and lexical adjectives (Genetti 2011). While nouns and adjectives form the class of 'macro-nominals' in Geshiza, I consider them separate word classes. For this reason, what I term as 'adjectivisation' is discussed in the following subsection §6.2.3.2.

Table 6.15. Nominalisation in Geshiza

Category	Nominaliser	Main function	Examples
Argument	*-me*	agentive, non-past	*vzə-me* 'repairer'
nominalisation	*-s^{h}i*	agentive, past	*dæ-s^{h}æ-s^{h}i* 'dead person'
	-pa	agentive	*mi-ntɕ^{h}o-pa* 'poor person'
	-q^{h}ua	agentive, pejorative	*stɕær-q^{h}ua* 'coward'
	-ʑæ	patient	*ŋgə-ʑæ* 'things eaten, food'
	-je	instrument	*mts^{h}ɔ-je* 'sieve'
	-t^{h}oŋ	manner	*vɕæ-t^{h}oŋ* 'way of speaking'
	-ko	locative	*wdʑolo-ko* 'mill'
Action	*conversion*	action	*rŋa* 'hunting'
nominalisation	*reduplication*	action	*rə-ræ* 'shopping'
Special	*-pa*	capacitative: opportunity	*ɕə-pa* 'managing to go'
non-argument	*-t^{h}æ*	capacitative: physical	*ɕə-t^{h}æ* 'managing to go'
nominalisation	*-loŋ*	limitative	*ɕə-loŋ* 'limits to going'
	-rgui	permissive	*ɕə-rgui* 'permitted to go'
	-tɕ^{h}i	preparative	*dæ-tɕ^{h}i* 'preparing to do'

Agentive nominaliser -me

The agentive S/A nominaliser *-me* (glossing: NMLZ:S, NMLZ:A, occasionally NMLZ:P) is used to form agent nouns in the pattern of 'the one who does V, Ver'. It is highly productive and frequent in the language with the result that many of the thus nominalised verbs have become conventional everyday nouns in the Geshiza language. Since the nominaliser adjoins the non-past stem of a verb, the nominalisation inherits this temporal feature (see agentive nominaliser *-s^{h}i* below used for the past tense agentive nominaliser).

Both intransitive and transitive verbs may undergo nominalisation by *-me*. Strictly speaking, not all of the relationships are agentive in nature, for instance *s^{h}æ* (V2b) 'to die' > *s^{h}æ-me* 'dead person'. Nevertheless, for the sake of clarity, I use herein the traditional term 'agentive'.

A nominalisations by *-me* can be divided into two subgroups: simple and complex. While simple nominalised actor nouns consist merely of the verb root and the nominalising suffix, a verb phrase including an object may also undergo nominalisation and compounding, termed here as complex agentive nominalisation. Table 6.16 on the following page summarises the use of *-me* in nominalisation:

Table 6.16. Examples of agentive nominalisation with the nominaliser *-me*

Type	Source	Gloss	NMLZ	Gloss
S	*ɻarara* (V2b)	to fight	*ɻarara-me*	fighter
	ŋo (V2b)	to be sick	*ŋo-me*	sick person
	s^{h}æ (V2b)	die	*s^{h}æ-me*	dead person
	tɕ^{h}a (V2b)	to be able	*tɕ^{h}a-me*	winner
A	*mdʑəska* (V4)	to watch	*mdʑəska-me*	spectator
(simple)	*v-ræ* (V3b)	to write	*ræ-me*	writer
	v-rə (V3b)	go buy	*rə-me*	buyer
	vzə (V3b)	to fix, repair	*vzə-me*	repair person
A	*mdʑə v-tə* (N V3b)	to dance a dance	*mdʑə-tə-me*	dancer
(complex)	*ʈʂ^{h}etsə læ* (N V4)	to drive a car	*ʈ^{h}etsə-læ-me*	driver
	dzi və (N V3b ~ V4)	to cook food	*dzi-və-me*	cook
	dʑədə zij (N V4)	to teach the letters	*dʑədə-zij-me*	teacher

Chinese loanwords and -me

The nominaliser *-me* is also used in Chinese loanwords, formations listed in Table 6.17. As illustrated in example (6.1), the use of the nominaliser accommodates Chinese stative verbs as nouns into Geshiza.

Table 6.17. Examples of Chinese loanwords with the nominaliser *-me*

Chinese source	Gloss	Nominalisation	Gloss
lǎoshi 老实	to be sincere	*ləuʂə-me*	sincere person
bùdéliǎo 不得了	extremely	*putəliəu-me*	extraordinary person
máfan 麻烦	to be troublesome	*mafæn-me*	troublesome one
bù cháng 不长	not to be long	*mi-ʈʂ^{h}an-me*	not a long one
cōngming 聪明	to be clever	*ts^{h}onmin-me*	clever person
jiǎndān 简单	to be simple	*tɕiæntæn-me*	simple one
zhòngyào 重要	to be important	*ʈʂuɲjəu-me*	important one

(6.1) [...] *e* *vdzævæ=t^{h}ə* ***<ləuʂə>-me*** *dæ-ŋuə-s^{h}i.*
[...] DEM old.man=TOP **sincere-NMLZ:S** PFV-COP.3-IFR
Then, the old man was a sincere person. (RN: folktale)

Historical-comparative remark

Etymologically, the nominaliser *-me* originates possibly from a historical reflex of the Proto-Trans-Himalayan 'person, man'. Contemporary Geshiza uses only *vdzi* 'person, man' for

general reference to the concept of person. An identical evolutive process from the noun 'person' into agentive nominaliser is documented in the related Longxi Qiang (Zheng 2016: 210) and the grammaticalisation process is likely more wide-spread in the region. Alternatively, the nominaliser is a borrowing from the Tibetan *mi* 'person'.

Agentive nominaliser -s^{h}i

The nominaliser *-s^{h}i* (glossing: NMLZ:S, NMLZ:A) forms past nominalisations that correspond to *-me: s^{h}æ* (V2b) 'to die' > *dæ-sæ-s^{h}i* 'person who has died'. The nominaliser has a broader function in building relative clauses (see §12.5.2).

Agentive nominaliser -pa

An agentive nominaliser *-pa* (glossing: NMLZ:A) appears marginally in Geshiza with verbs not traceable into Tibetan: *rŋa* (V3b) 'to hunt' > *rŋa-pa* 'hunter'; *ntɕ^{h}o* (V3b) 'to have' > *mi-ntɕ^{h}o* 'not to have' > *mi-ntɕ^{h}o-pa* 'poor person'. For the latter, the more frequent *mi-ntɕ^{h}o-me* is also used. The marginal agentive nominaliser is a borrowing from the Tibetan *pa* with similar function.

Agentive nominaliser -q^{h}ua

The unproductive agentive nominaliser *-q^{h}ua* (glossing: NMLZ:S, NMLZ:A) also forms agent nouns from verbs (table 6.18). According to folk etymology, the nominaliser originates from the noun *q^{h}ua* denoting a large sack used primarily for cereals. For instance, *læmæ-q^{h}ua* 'frequent liar' is a person carrying a bag of lies. At the current stage, the veracity of this folk etymological explanation remains unconfirmed.

Table 6.18. Examples of agentive nominalisation with the nominaliser *-q^{h}ua*

Verb and phrase	*Gloss*	Agentive NMlZ	*Gloss*
s^{h}æ (V4)	to kill	*s^{h}æ-q^{h}ua*	murderer
lmæmæ (V2b)	to cry	*lmæmæ-q^{h}ua*	cry baby
lmə (V4)	to forget	*lmə-q^{h}ua*	forgetful person
ntɕ^{h}æra (V2b)	to have a fun time	*ntɕ^{h}æra-q^{h}ua*	idler, do-nothing
rgə (V2b)	to sleep	*rgə-q^{h}ua*	sleepyhead
vo t^{h}i (N V3b)	to drink alcohol	*vo-t^{h}i-q^{h}ua*	drunkard

The semantic contrast between *-me* and *-q^{h}ua* is that the latter is invariably used pejoratively in negative contexts: e.g. *s^{h}æ-q^{h}ua* 'murderer'. Thus, forms such as **ʈs^{h}etsə-læ-q^{h}ua* 'driver' are ungrammatical, since driving a car has no negative associations. Because of this semantic nuance, the nominaliser *-q^{h}ua* frequently appears in confrontational or jocular situations.

Patient nominaliser -ʑæ

The nominaliser *-ʑæ* (glossing: NMLZ:P) forms nouns designating the patient of the action of a transitive verb (Table 6.19). Some of the resulting patient nominalisations have synonyms in the Geshiza lexicon: *ŋgə-ʑæ* 'things eaten, food'; *dzi* 'food'.

Table 6.19. Examples of patient nominalisation with the nominaliser *-ʑæ*

Verb	Gloss	Patientl NMLZ	gloss
s^h-uele (V3b)	to hang	*s^h-uele-ʑa*	thing hanging, pendant lamp
v-gə (V3b)	to wear	*gə-ʑæ*	things worn, clothing
v-t^{h}i (V3b)	to drink	*t^{h}i-ʑæ*	things drunk, drink
vɕæ (V3b)	to say	*vɕæ-ʑæ*	things said, words
v-dæ (V3b)	to do	*dæ-ʑæ*	things done, deed

Instrumental nominaliser -je

Geshiza uses a non-productive nominalising suffix *-je* (glossing: NMLZ:INSTR) to create nouns that are instruments of action, illustrated in Table 6.20:

Table 6.20. Examples of instrumental nominalisations with the nominaliser *-je*

Phrase	Gloss	Instrumental NMLZ	gloss
grə smu (N V3b)	to row a boat	*grə-smu-je*	oar
s^{h}i k^{h}uæ (N V3b)	to cut wood	*s^{h}i-k^{h}uæ-je*	wood cutting tool
wmə zvær (N V3b)	to light a fire	*wmə-zvær-je*	lighter
ɕə rɣi (N V4)	to brush teeth	*ɕə-rɣi-je*	toothbrush
ts^{h}æzgə rɣi (N V4)	to wash clothes	*ts^{h}æzgə-rɣi-je*	washing machine

One role for the instrumental nominaliser is to create alternative ways for loanwords for expressing new technology. Many instrumental nominalisations have a loanword equivalent that is preferred by the young speakers. For instance, even though the elderly use the word *ts^{h}æzgə-rɣi-je* (clothes-wash-NMLZ:INSTR) 'washing machine', the young prefer the Chinese loanword *ɕijitɕi borrowed from xǐyījī* 洗衣机 'washing machine'. Nevertheless, because of the possibilities provided by the instrumental nominaliser *-je*, even the elderly have a convenient means of discussing modern artefacts regardless of their exposure to Chinese and knowledge of Chinese loanwords.

Typological-comparative remark

From a typological viewpoint, in many languages, the agentive and instrumental nominalisations share the same form (Payne 1997: 228). In Geshiza, however, the two are kept strictly separate.

Stau has an instrumental nominaliser *-sce* that would correspond to Geshiza *-stɕæ*. Duo'erji (1997: 55) reports such nominaliser in Geshiza: e.g. *v-dæ* (V3b) 'to do' > *dæ-stɕæ* 'tool'. In the easternmost varieties of Eastern Geshiza on which the present description focuses, such nominaliser never occurs in the source materials, even fossilised in individual lexical items. Against this backdrop, the nominaliser *-stɕæ* appears as an archaic Horpa feature lost in some and preserved in some Geshiza varieties.

Locative nominaliser -ko

The nominalising suffix *-ko* (glossing: NMLZ:LOC) derives locational nouns from verbs, expressing a place where the action of the verb happens, as shown in Table 6.21:

Table 6.21. Examples of locative nominalisation with the nominaliser *-ko*

Verb	Gloss	Locative NMLZ	gloss
ɑ̨rəu (V1a)	to be shady	*arəu-ko*	shady place or spot
sti (V3b)	to put	*sti-ko*	storage space
ndzo (V2b)	to sit, stay	*ndzo-ko*	accommodation
rgə (V2b)	to sleep	*rgə-ko*	sleeping place, hotel
wdʑo-lo (V3b)	to grind	*wdʑolo-ko*	grinding room, mill

The suffix is identical with the nominal location suffix *-ko* (see §6.2.2.4). The locational place is prototypically small and contained. Most locative nominalisations have a relatively compositional meaning that can be easily inferred from the constituent parts, but counterexamples with narrowed meanings exist: *v-kʰrə* 'to grasp' > *kʰrə-ko* 'handrail'.

Some locative nominalisations have idiosyncratic meanings not predictable from the verb itself: *vɕe* 'to want, need' *vɕe-ko* 'use or need for an object', not 'place where something is needed or lacking'. Such idiosyncratic behaviour nevertheless frequently occurs in nominalisations typologically.

Manner nominaliser -tʰoŋ

Manner nominalisation refers to strategy of verb nominalisation that derives nouns with the meaning 'way of "verbing' (Comrie and Thompson 2007: 339). In Geshiza, the manner nominaliser *-tʰoŋ* (glossing: NMLZ:manner) exhibits this function, as illustrated with examples in Table 6.22:

Table 6.22. Examples of manner nominalisation with the nominaliser *-tʰoŋ*

Verb	Gloss	Manner NMLZ	gloss
v-ræ (V3b)	to write	*ræ-tʰoŋ*	way of writing
vɕæ (V3b)	to speak	*vɕæ-tʰoŋ*	way of speaking
və (V3b ~ V4)	to do	*və-tʰoŋ*	way of doing
vzə (V3b)	to repair, fix	*vzə-tʰoŋ*	way of repairing, fixing

Typological-comparative remark

Comrie and Thompson (2007: 339) report that in some languages, such as English, manner nominalisations receive both a fact/occurrence and a manner interpretation. In Geshiza, only the former is possible, and manner nominalisations are never used to indicate 'the fact of Ving'.

The manner nominaliser *-tʰoŋ* is both formally and functionally similar to the Tibetan nominaliser *stangs,* and could be borrowed into the language, but further diachronic research is needed for this point.

Reduplicative action nominalisation

Reduplication of a verb's non-past stem also serves a nominalising function in Geshiza (glossing: NMLZ:ACT), examples offered in Table 6.23. This nominalisation strategy best classified as action nominalisation has low productivity in the language.

Table 6.23. Examples of reduplicative action nominalisation

Verb	Gloss	Reduplicative NMLZ	Gloss
v-kʰji (V3b)	to dry in the Sun	*kʰji~kʰja*	drying in the Sun
mtsi (V3b)	to sharpen	*mtsi~mtsa*	sharpening
ntsʰe (V4)	to act, perform	*ntsʰe~ntsʰa*	acting, performing
v-rə (V3b)	to buy	*rə~ræ*	shopping
zrə (V3b)	to clean	*zrə~zræ*	cleaning
v-ʑə (V3b)	to plant	*ʑə~ʑæ*	planting
ntʰɔ (V3b)	to weave	*ntʰɔ~ntʰa*	weaving
rdʑu (V2b)	to run	*rdʑu~rdʑa*	running

The nominalisation is formed by reduplicating the infinitive. Reduplicative nominalisation, however, differs from usual reduplication in Geshiza by placing the reduplicated part after the stem. For instance, *v-ʑə* (V3b) 'to plant' > *ʑə~ʑæ* 'planting' follows the pattern stem~RED. The opposite is the case in ordinary reduplication (see §4.3.5.5) that follows the pattern RED~stem, such as in the root *rji* (V2b) 'to wake up' > *rjə-rji* 'to wake up'.

In the attested forms, the vowel of the reduplicated syllable depends on the verb root

vowel, the reduplication patterns being CV{i, e, u} CV{i, e, u}~CVa; CV{ə} → CV{ə}~CVæ. In other words, the vowels /i, a/ change into /a/ in the reduplicated syllable while /ə/ changes into /æ/.

In terms of their distributional properties, the reduplicative nominalisations form a complex predicate with the light verb *və* (V3b ~ V4) 'to do' (see §4.3.7.1), as shown in (6.2). They cannot stand independently, for which reason they are best characterised as 'nounoids' (see §4.2.1).

(6.2) *braŋgu* ***rə~ræ*** *d-ə-van.*
TOPN **buy~RED.NMLZ.ACT** PREF-NACT-LV:do.1PL
We go (habitually before the Tibetan New Year) to Danba County Town to do shopping.
(RN: ethnographic description/procedure)

Zero derivation action nominalisation

Geshiza also possesses a minor non-productive action nominalisation strategy that uses zero derivation: *rŋa* 'to hunt, hunting'; *wdʑolo* 'to grind, grinding'; *mdʑa* 'to plant or hoe, planting or hoeing'. The instances of zero derivation for nominalisation result in syntactically bound 'nounoids' that always must be used together with the light verb *vəː rŋa və* 'to hunt, lit. to do hunting'. This nominalisation type should not be mixed with noun-verb conversion (see §6.2.4.1) where the noun functioning as the primary form has an independent existence without the light verb *və* the use of which would result in an ungrammatical construction: *zga* 'saddle, to saddle', **zga və* intended meaning 'to saddle'.

Special non-argument nominalisations

Geshiza has additionally non-argument nominalisers that create nominalisations with highly specific meanings. The identified suffixes are listed in Table 6.15 at the beginning of this subsection. The resulting nominalisations are marginal nouns and always occur either with a light verb or fixed predicates. For this reason, I discuss them in the context of complex predicates (see §4.3.7.1).

6.2.3.2. Adjectivisation

Adjectives in Geshiza are mostly a derived, non-primary word class comprising the sub-categories of prefixed adjectives, reduplicated adjectives, and non-marked adjectives. Adjectives in the language can be derived from verbs either by means of the adjectivising prefix *gæ-* (glossing: ADJZ) or by reduplication (glossing: RED.ADJZ), examples shown in Table 6.24 on the following page. The historical origin of *gæ-* remains unsettled. The adjectivising prefix may derive from a PTH nominalising prefix *gV- widely attested in Trans-Himalayan languages (see Konnerth 2009, 2016). Alternatively, it may be an intensifying prefix with a different historical origin (Jacques, personal communication, March 10 2018).

The derivation of adjectives takes two possible paths: reduplication and prefixation. A set of stative verbs from Verb classes 1a and 2a derive semantically corresponding adjectives through the adjectivising prefix *gæ-*: *mdze* 'to be beautiful' > *gæ-mdze* 'beautiful'. The second subset of stative verbs from predominantly verb class 1a form a derived adjective through reduplication: *lo* 'to be hot' > *lo~lo* 'hot'. In such cases, the source verbs exhibit a monosyllabic syllable pattern that can easily be reduplicated. The mechanisms are mutually exclusive in most cases: when a verb follows prefixation in adjectivisation, it cannot be reduplicated for the same effect, and vice versa: e.g. *mdze* 'to be beautiful' > **mdze-mdze* 'intended meaning: beautiful'.

Table 6.24. Derivation of adjectives with the prefix *gæ-* and by reduplication

Verb	Gloss	Adjective	Gloss
ŋi (V1a)	to be good	*gæ-ŋi*	good
ʑo (V1a)	to be tasty	*gæ-ʑo*	tasty
mdze (V2a)	to be beautiful	*gæ-mdze*	beautiful
tɕʰæ (V2a)	to be big	*gæ-tɕʰæ*	big
tsʰuə (V2a)	to be fat	*gæ-tsʰuə*	fat
a̱næ (V1a)	to be dark	*a̱næ~a̱næ*	dark
bə (V1a)	to be thin	*bær~bær*	thin
lo (V1a)	to be hot	*lo~lo*	hot
ɲa (V1a)	to be black	*ɲa~ɲa*	black
ɴqʰi (V2a)	to be thin	*ɴqʰi~ɴqʰi*	thin

6.2.3.3. Semelfactive prefix *æ-*

Semelfactive nouns are deverbal nouns used together with the light verb *v-ra* (see §4.3.7.1) to express the semelfactive aspect (see §8.3.8) They are derived by the semelfactive prefix *æ-* (glossing: SEM) through a highly productive morphological process in Geshiza, a sample of derivations being illustrated in Table 6.25 on the following page. It is evident that the semelfactive prefix *æ-* is historically related to the bound numeral prefix *æ-* 'one' (see §4.6.1. *Bound numeral prefix æ-*). Prefix *æ-* attaches to the infinite form (see §4.3.6) of a verb, i.e., to a non-past stem without inverse marking and argument indexation. Stative verbs (1a, 2a) lack semelfactive derivation. The core meaning of the newly formed deverbal noun is 'one V-ing' (6.3). Being syntactically bound and only occurring in this construction, it is a 'nounoid' (see §4.2.1).

(6.3) *ɕə* *rqəu* ***æ-ɲlolə*** *rə-v-ra-ræ* […]
tooth among **SEM-feel.about** PFV.DIR-INV-LV:hit=LNK […]
He felt one between his teeth (with his finger to remove stuck food). (RN: folktale)

Table 6.25. Derivation of semelfactive nouns in Geshiza

Verb	Gloss	Semelfactive Noun	Gloss
nlolə (V3b)	to feel about	*æ-nlolə*	feeling about once
ŋkʰuə (V4)	to put in	*æ-ŋkʰuə*	putting in once
ntsʰərɣi (V2b)	to wash the face	*æ-ntsʰərɣi*	washing the face once
ntɕʰua (V3b)	to step on	*æ-ntɕʰua*	stepping on once
pʰje (V2b)	to escape	*æ-pʰje*	escaping once
rtɕʰæ (V3b)	to bite	*æ-rtɕʰæ*	biting once
snəno (V3b)	to smell	*æ-snəno*	smelling once

6.2.3.4. Causativising prefix *s/z-*

The causative prefix *s/z-* (glossing: CAUS) is inherited from PTH, but it is no longer fully productive in Geshiza, remaining fossilised in 32 identified verbs of the language, such as *v-gə* (V3b) 'to dress' > *z-gə* (V4) 'to dress someone, make wear' (6.4, 6.5). In contemporary Geshiza, new productive causative derivations are formed with the causative auxiliary verb *-pʰə* (see §4.3.8) The presence of the causative prefix *s/z-* triggers phonological adjustments, but overall, they are very transparent in comparison to the related Shangzhai Horpa (see Sun 2007a).[55]

(6.4) *ɲi* *tsʰazgə=dʑe* *æ-ntsʰæ* *dæ-**z**-goŋ=mde.*
2SG.GEN clothes=TOP one-CLF.little.bit IMP-**CAUS**-wear.1=MOD
Make me wear your chothes! (RN: folktale)

(6.5) *xe=je* *tsʰazgə=dʑe* *dæ-v-gə=ræ* […]
DEM.GEN clothes=TOP PFV-INV-wear.3=LNK […]
He wore his clothes, and… (RN: folktale)

Causatives are built from both non-stative intransitive and transitive verbs: *rbə* (V1b) 'to be piled up' > *z-bə* (V3b) 'to pile'; *v-gə* (V3b) 'to wear' (TR) > *z-gə* (V4) 'to dress someone'. In addition to clear pairs listed in Table 6.26 on the following page, the pair *rə* (V3b) 'to buy' and *zjə* (V3b) 'to sell' with irregular phonological correspondence might also be a historical case of causative derivation.

[55] Shangzhai *s-* is a cognate to Geshiza *s/z-* and exhibits highly complex surface variation (e.g. voicing assimilation, lateralisation, affrication, cluster simplification, metathesis, M-spirantisation) that far exceeds the variation present in Geshiza.

Table 6.26. Causative derivation with the prefix *s/z-* in Geshiza

Base verb	Gloss	Causative	Gloss
ạ-le (V2b)	to fall	*s-le* (V4)	to fell, make fall
ạ-tɕʰi (V2b)	to move	*s-tɕʰi* (V3b)	to move
bəla (V1b)	to be turbid	*z-bəla* (V3b)	to make turbid
v-gə (V3b)	to dress	*z-gə* (V4)	to dress someone
ŋgræl (V2b)	to line up	*z-græl* (V4)	to lay out (things)
ɣo (V2b)	to help	*z-ɣo* (V4)	to ask for help, to recruit
kə (V1b)	to be conserved	*s-kə* (V3b)	to conserve (e.g. food)
lə (V1b)	to boil INTR	*z-lə* (3b)	to boil TR
lmæmæ (V2b)	to cry	*s-mæmæ* (V4)	to make cry
mæmu (V2b)	to move	*s-mæmu* (V4)	to move
mbəva (V4)	to piggyback	*z-bəva* (V4)	to make someone piggyback someone
mə (V1b)	to be cooked, ready	*s-mə* (V3b)	to cook ready
mpʰræ (V2b)	to fit, be in harmony with each other	*s-præ* (V4)	to put things or people together
ndə (V2b)	to get wet	*z-də* (V3b)	to irrigate
nə (V1b)	to be lighted	*s-nə* (V3b)	to light
ŋgæde (V2b)	to call, shout	*z-gæde* (3b)	to knock
ŋkʰær (V2b)	to return	*s-kʰær* (V4)	to make somebody return, send back (things)
pʰrəu (V3b)	to leash, fasten	*s-pʰrəu* (V4)	to tie
qʰæqʰæ (V2b)	to laugh	*s-qʰæqʰæ* (V4)	to make someone laugh
rbə (V1b)	to be piled up	*z-bə* (V3b)	to pile
rgə (V2b)	to sleep	*z-gə* (V4)	to tell somebody to sleep
ri (V2b)	to be remaining	*z-ri* (V4)	to leave, e.g. food
rkʰo (V1a)	to be cold	*s-ko* (V3b)	to cool down, e.g. tea
rŋi (V3b)	to borrow	*s-ŋi* (V4)	to lend
rji (V2b)	to stand up, wake up	*sʰ-ji* (V4)	to wake someone up
sko (V2b)	to have in possession	*s-kʰo* (V4)	to make someone have sth
v-tʰi (V3b)	to drink	*s-tʰi* (V4)	to make somebody drink
**tʰoʑə*	not used	*s-tʰoʑə* (V4)	to mix
v-tɕi (V3b)	to ride (e.g. a horse)	*s-tɕi* (V4)	to le, make ride (e.g. a horse)
tɕutɕu (V2b)	to gather INTR	*s-tɕutɕu* (V4)	to gather TR
wele (V2b)	to hang	*sʰ-uele* (V3b)	to hang
v-xuə (V3b)	to wear shoes	*s-xuə* (V4)	to put shoes on somebody

Voicedness of the initial consonant in verb determines the value of the historical causative prefix, except in the case of nasals and the initial *j*. The alloform *s-* attaches to unvoiced initial consonants, nasals, and the initial consonant *j*, the alloform *z-* adjoining voiced initial consonants. For example, *lə* (V1b) 'to boil' > *z-lə* (V3b) 'to boil'. Nasals constitute an exception in voicing assimilation, since Geshiza only allows *sN* (*sm, sn, sɲ, sŋ*) nasal C_pC_i clusters, *zN* (**zm*, **zn*, **zɲ*, **zŋ*) not being phonotactically available in the language.

Causativisation of verbs with preinitials follows a two-way process. First, the C_p prefix (*N, m, r, l, w, v, x/ɣ*) is removed. Following, the causative prefix is inserted, adjusting its voicedness with the initial based on the rules described above. For instance, *lmæmæ* (V2b) 'to cry' has its preinitial *l* removed, followed by the insertion of *s-*, resulting in *s-mæmæ* (V4) 'to make to cry'. The inverse prefix *v-* never appears together with the causative prefix *s/z-*, since it stands in a paradigmatic relationship with valency-changing morphemes of Geshiza. Consequently, the inverse prefix can also be analysed as a removed preinitial in the causativisation process: *v-t^{h}i* (V3b) 'to drink' > *s-t^{h}i* (V4) 'to give to drink'.

Causative derivation in Geshiza is morphophonemically straightforward vis-à-vis some other Horpa varieties (see footnote 55 on page425). Some irregularities concerning the roots' aspiration nevertheless emerge among the verb pairs in the table, all. First, the corresponding causative **s-k^{h}o* for *rk^{h}o* (V1a) 'to be cold' is ungrammatical in Balang, *s-ko* (V3b) being used instead. The source verb is also the only attested case of a possible causativisation of a stative verb. Second, *sko* (V2b) 'to hold, have in one's possession' already includes the initial *s-* and undergoes causative formation by changing the aspiration grade into *s-k^{h}o* (V4) 'to make someone have something'. Finally, the intransitive verb **t^{h}oʑə* 'to mix' is not in use in Balang, the primary fieldwork location, where the form is judged ungrammatical and replaced by the intransitive verb *t^{h}ole* (V2b) 'to mix, get mixed'. The verb *t^{h}oʑə* is nevertheless reported by Duo'erji (1997: 77) and is thus likely used in some parts of Geshiza Valley. Finally, two pairs, *ŋji* (V2b) 'to stand up, wake up' > *s^h-ji* (not **s-ji*) (V4) 'to wake someone up' and *wele* (V2b) 'to hang' > *s^h-uele* (not **s-uele*) (V3b) 'to hang' are exceptional. This originates from the source verbs starting with a semi-vowel, so that historically the causativisations had a C_iC_m structure that differs from C_pC_i attested in all other causativisations (see §3.2.2 for the issue of diphthongs in Geshiza).

With possibly one exception discussed above, the historical causative prefix *s/z-* does not operate on class 1a stative verbs or class 4 transitive verbs that have highest prototypical transitivity value in Geshiza. Depending on the verb class of the original verb, causativisation by *s/z-* changes a verb's argument indexation properties and thus its class in a largely predictable manner. Table 6.27 summarises these changes. In sum, when causativised, transitive verbs tend to acquire the most complex person indexation properties of class 4. The same tendency holds in class 2b intransitive verbs when semantics allow this. Verbs from classes 1a and 1b shift to class 3b where they acquire person and number, but no inversion in the SAPs.

Table 6.27. Effects of causativsation by *s/z-* on verb class (31 verb pairs)

Type	Original verb	Causativisation
Intransitive	1a	3b (1 pair)
	1b	3b (6 pairs)
	2b	3b (4pairs); 4 (13 pairs)
Transitive	3b	4 (6 pairs)
	4	4 (1 pair)

Vestiges of w- *causative prefix*

In Gyalrongic languages, such as Wobzi Khroskyabs (Lai 2017: 369), a causative prefix *wV-* ~ *vV-* ~ *ɣV-* is widely attested. A likely cognate for the prefix, namely *w-*, appears only in one verb in Geshiza: *wʑælæ* (V3b) 'to peel' that corresponds to the intransitive verb *n-dʑælæ* (V1b) to peel off (old skin), itself derived from the noun *dʑæ-læ* (N-HSUF) 'skin' through verbalisation. The same suffix is possibly used to verbalise the postposition (macro-nominal) *ɲo* 'after, behind' in *wɲo* (V4) 'to follow someone'. See §6.2.2.5 for formal similarity between the causative prefix s/z- and the verbalisers in Geshiza.

6.2.3.5. Anticausativisation by voicing alternation

Separate from the causative formation by the historical causative prefix s/z-, Geshiza has a set of verbs pairs with voicing alternation as the derivation formative. The voiced members are intransitive anticausative verbs (glossing: ANTICAUS) while their unvoiced counterparts are transitive. The process generally called anticausative derivation in West Gyalrongic studies is unproductive in contemporary Geshiza. Only fossilised lexical remains of this historical phenomenon remain in the language, all 12 attested instances from the source materials listed in Table 6.28 on the following page. Most of the attested verb pairs have the semantic content of breaking, separation, or removal in various ways, which very unlikely results from a coincidence. On the contrary, voicing alternation has clearly functioned as a way of encoding this semantic content at proto-Gyalrongic and even further before. Observations from related languages, e.g. Japhug (2012a: 2015) and Mu(n)ya (Gao 2015: 337-339) further confirm this.

In verb pairs that have historical consonant clusters, the diachronicity needs to be considered for understanding voicing alternation. For instance, the alternating pair *a̱ɕə* (V3b) 'to break', *a̱ʑə* (V1b) 'to break' has the historical form **xɕə*, **ɣʑə* (see §3.3.3.1 for the realisation of the preinitial *x/ɣ-* as *a̱-*). The pair *v-tʰo* (V3b) 'to light a fire', *dor* (V1b) 'to burn, be on fire (by itself)' is either dubious or irregular, since the 'anticausative' verb additionally includes a coda *-r* that is occasionally omitted in casual pronunciation (see §3.4.5 for vowel rhotacisation). Since the verb pair lacks a clear semantic connection with the others, its genuine status may also be questioned. Equally, the pair *mtɕʰə* (V3b) 'to melt' *dʑə* (V1b) 'to melt' is slightly irregular due to the presence of the nasal in the transitive verb.

Table 6.28. Anticausativisation by voicing alternation in Geshiza[56]

Causative	Gloss	Anticausative	Gloss
ɐ̨ɕə (V3b)	to break (sticks)	*ɐ̨ʑə* (V1b)	to break (sticks)
v-tɕʰævsʰə (V4)	to make roll	*dʑævzə* (V1b)	to roll
v-kʰuæ (V3b)	to cut (general)	*guæ* (V1b)	to collapse, to drop (e.g. antlers)
mtɕʰə (V3b)	to melt	*dʑə* (V1b)	to melt
pja (V3b)	to cut (wood)	*bja* (V1b)	to crack
præ (3b)	to break (strings)	*bræ* (V1b)	to break (strings)
prə (3b)	to break (fabric)	*brə* (V1b)	to break (fabric)
pʰæ v-tɕʰo (V4)	to separate	*bæ-dʑo* (V2b)	to get separated, divorce
v-sʰæle (V4)	to rotate	*zæle* (V2b)	to rotate
v-tʰo (V3b)	to light a fire	*dor* (V1b)	to burn, be on fire (by itself)
v-tsa (V4)	to drop	*dza* (V2b)	to fall
v-tɕʰi (V3b)	to make a hole	*wdʑi* (V1b)	to have a hole

Anticausativisation applies to transitive verbs from classes 3b and 4, the two of which behave differently (Table 6.29). Verbs from class 4 anticausativise into class 2b intransitive verbs that index the subject's person, not number. On the other hand, the anticausative formation for verbs from class 3b are in class 1b devoid of argument indexation. Finally, no stative verbs of classes 1a and 2a can be formed through anticausativisation.

Table 6.29. Effects of anticausativsation on verb class (12 verb pairs)

Type	Original verb	Anticausativisation
Transitive	3b	1b (8 pairs)
	4	2b (4 pairs)

Direction of derivation

When discussing anticausatives in Wobzi Khroskyabs, Lai (2017: 550) argues that the anticausative forms derive from the transitive verbs and not vice versa, *inter alia*, by showing that if the opposite were the case, the transitive verbs would be uniformly either aspirated or non-aspirated. The existence of corresponding transitive forms for anticausatives with both aspiration and non-aspiration prove the direction of derivation in Geshiza: e.g. *pja* (V3b) 'to cut' (wood), *v-sʰæle* (V4) 'to rotate'. Also, additional external evidence from other Gyalrongic

[56] Despite outward similarity, the verb pair *bəu* (V2b) 'to descend' *pʰəu* (V4) 'to take down' must be kept distinct. Both verbs have been borrowed from Tibetan: *bab* 'to descend, alight, rain' and *phab* 'cause to fall, bring down', respectively. This can be proven as follows. First, the verb pair fails to fit into the general semantic matrix of Geshiza native verb pairs with voicing alternation. Second, as discussed in §7.5.2, anticausativisation demotes the erstwhile P into S, accompanied with the deletion of the original A, yet this does not apply to *bəu* and *pʰəu*.

languages, provides further evidence that the anticausatives derive from the transitive verbs (see Jacques 2012).

6.2.3.6. Intransitivising prefix *a̱-*

An intransitivising prefix *a̱-* (glossing: INTR) is attached to some verbs, thus creating transitive-intransitive verb pairs in which *a̱-* replaces the verbal prefix of a transitive verb it intransitivises. It is probably related to Japhug passive *ɐ-* (<*ŋa-) (Jacques, personal communication, March 10 2018) and to Wobzi Khroskyabs *ʁ-* (Lai 2017: 354-357). The prefix is non-syllabic, i.e. its addition does not alter the number of syllables in a word-form. All non-syllabic instances of /a̱/ in Geshiza originate from simplified preinitial clusters of *xC$_m$- and *ɣC$_m$- (see §3.3.3.1). Consequently, the intransitivising prefix likely originates as *ɣ-. The voice-decreasing device present in other Horpa languages is nevertheless rarely attested in Geshiza, all four instances from the source materials being listed in Table 6.30:

Table 6.30. Verbs with the intransitive prefix *a̱-* and their transitive counterparts

Intransitive	Intransitive Gloss	Transitive	Transitive Gloss
a̱-t^{h}a (V1b)	to get attached, stuck	*v-t^{h}a* (V3b)	to attach, join
a̱-tɕ^{h}i (V2b)	to move (home) INTR	*s-tɕ^{h}i* (V3b)	to move (objects)
a̱-le (V2b)	to fall	*s-le* (V4)	to fell
a̱-ræ (V1b)	to appear (signs)	*v-ræ* (V3b)	to write

The pair *a̱-ræ* (V1b) ‘to appear, be present’ and *v-ræ* (V3b) ‘to write’ is more speculative, but nevertheless plausible. The intransitive verb *a̱-ræ* describes contexts in which signs, such as rainbows, or a Tibetan letter appearing on the tooth of Princess Wencheng (folklore, see §2.7.4). It contrasts with the transitive verb *v-ræ* that refers to writing, intentional production of signs.

Since the historical research of Horpa languages remains at an incipient stage, future investigation will likely reveal more verbs with the intransitivising prefix. An initial survey of all analysed verbs collected for this grammar shows that while 29 intransitive verbs start with *a̱*, only 6 transitive verbs do so. Furthermore, in the case of transitive verbs, the occurrence of *a̱* can often be explained, for instance, as a result of borrowing from Tibetan. In conclusion, the distribution of *a̱* across the transitive and intransitive verb classes provides further evidence for establishing a historical intransitivising prefix *a̱-*.

Two verbs potentially including the prefix additionally include non-productive reduplication in their stems that indicates reciprocity: e.g. *a̱rara* (V2b) ‘to fight’, *a̱məmə* (V2b) ‘to discuss’. Also, a derived reduplication with a reciprocal meaning formed with the intransitive prefix *a̱-* is found in *a̱-t^{h}əu~t^{h}əu* (V2b) ‘to be mutually close (e.g. houses of a village close to each other)’ < *v-t^{h}əu* ‘to approach’.

6.2.3.7. Autobenefactive prefix *N-*

Autobenefactive or self-benefactive can be defined as a subtype of the agentive benefactive in which the agent is also the beneficiary (Yamashita Smith 2010: 91). Benefactive itself can be defined as the grammatical coding of a benefactive situation occurring to the benefit of a participant. In Geshiza, the autobenefactive does not alter the valency of a verb.

Geshiza shows limited autobenefactive derivation through prefixation. The applicative-autobenefactive prefix *N-* (glossing: AB) consists of a morphophonemic *N*, the archiphoneme discussed in detail in §3.3.3. *N-* assimilates into a homorganic nasal with the initial consonant of the verb stem. In contemporary Geshiza, many of the autobenefactive meanings have become opaque, and the prefix *N-* survives as an unproductive fossil in several lexicalised verbs, attested cases from the source materials shown in Table 6.31 below:

Table 6.31. Autobenefactive derivation in Geshiza

Source	Gloss	Derivation	Gloss
pʰrəu (V3b)	to fasten, leash	*m-pʰrəu* (V3b)	to tie, wear (e.g. shoes)
v-tʰa (V3b)	to attach, join	*n-tʰa* (V3b)	to wear (accessories)
v-tʰæpʰæ (V4)	to take out	*n-tʰæpʰæ* (V3b)	to snatch, take out (for oneself)
və (V3b ~ V4)	to do	*n-və* (V3b)	to celebrate (e.g. an event)
ɕʰɔ (V2b)	to be (too) many, surplus, left over	*n-ɕʰɔ* (V2b)	to increase
tɕʰæ (V2a)	to be big	*n-tɕʰæ* (V2b)	to grow up
ʑjə (V3b)	to sell	*n-ʑjə* (V3b)	to sell (e.g. for one's livelihood)
wnæ-tsəu (V1b)	to heat (Sun)	*wnæ-n-tsəu* (V3b)	to warm oneself in the Sun

The example pair below illustrates autobenefactive derivation. While in (6.6), the use of *v-tʰa* (V3b) 'to attach, join' encodes a situation in which an agent attaches an item into something external to the ego, in (6.7), the use of the autobenefactive *n-tʰa* (V3b) 'to wear (accessories)' indicates that the action is carried out in the realm of the ego. The gained benefit, i.e. decorating oneself with a bracelet, remains rather abstract.

(6.6) […] *rjə=ke=tʰə* *səri* *gæ-v-ta=ræ* […]
[…] wild.horse=DAT=TOP rope IPFV-INV-attach.PST.3=LNK […]
… they tied a rope to the wild horse… (RN: folktale)

(6.7) […] *ʑækʰue=be* *gɔ-jær* *rə-**n**-tʰa* […]
[…] bracelet=too ADJZ-good PFV.DIR-**AB**-attach.3 […]
She also wears (i.e. wore) a good bracelet... (RN: local history)

Table 6.32. Effects of autobenefactivisation on verb class (9 verb pairs)

Type	Original verb	Autobenefactivisation
	1b	3b (1 pair)
Intransitive	2a	2b (1 pair)
	2b	2b (1 pair)
Transitive	3b	3b (4 pairs)
	4	3b (2 pairs)

Eight attested instances of autobenefactive derivation fail to provide enough materials for generalising patterns of changes in argument indexation properties upon autobenefictivisation. Summarised in Table 6.32 above, such changes are best seen in verb-by-verb basis.

Semantics of the autobenefactive

The meanings of the autobenefactive derivations in many cases show differing degrees of divergence from a prototypical autobenefactive. For instance, *ɲ-tɕʰæ* (V2b) 'to grow up' and *ɲ-ɕʰɔ* (V2b) 'to increase', autobenefactives of *tɕʰæ* (V2b) 'to be big' and and *ɕʰɔ* (V2b) 'to be (too) many, surplus, left over' exhibit an inchoative meaning that is difficult to consider within the semantic ranges of a prototypical autobenefactive. Similar cases are nevertheless attested in other Gyalrongic languages. Jacques (2015b: 10) reports that in Japhug, 'the prefix *nɯ-* marks spontaneous actions occurring without any external cause or against of the will of a particular referrent.' Apparent spontaneous growth of plants and animals, and inanimate beings is given as an example, which essentially characterises the function of the Geshiza autobenefactive *ɲ-tɕʰæ* (6.8). Similarly, *ɲ-ɕʰɔ* can also be also seen as spontaneous action without an apparent external cause.

(6.8) *lŋa=tʰə* *rə-**ɲ**-tɕæ* *rə-**ɲ**-tɕæ=ræ~ræ*
child=TOP PFV.DIR-**AB**-be.big.PST.3 PFV.DIR- **AB**-be-big.PST.3=LNK~RED

lŋa=wo=ræ~ræ *tsʰupa* *g-ə-dza-mə-ræ-jə.*
child=ERG=LNK~RED anger PREF-NACT-be.angry-EP-SENS-REP
The child grew and grew up and became angry. (RN: folktale)

Also, *ɲ-və* (V3b) the autobenefactive of *və* (V3b ~ V4) 'to do, light verb (see §4.3.7.1)' is frequently used with the meaning to 'celebrate an event, such as the New Year or a birthday' (6.9). Some uses of *ɲ-və* include more typical autobenefactivity, such as in (6.10), where a folktale character makes a walking stick (for herself). The example also illustrates how the difference between a source verb and an autobenefactive has greatly eroded in Geshiza: prior to reiteration with the autobenefactive, the source verb *və* is used in an identical meaning:

(6.9) *kʰætɕʰi* *xə* *dæ-doŋ.* *sə* *< sənrə >* ***dæ-n-van=ræ***
down DEM PFV-do.1PL HES birthday **PFV-AB-LV:do.1PL=LNK**

lŋa=jə=me *dæ-ŋɖʐere=gæ,* *æ-ŋuə.*
children=PL=too PFV-happy.3=MOD Q-COP.3
Downstairs, we did that: we celebrated the birthday and the children were happy too, right? (RN: chronicle)

(6.10) *e* *sʰi* *æ-qʰa=tʰə* *bældzə* *dæ-**və***
DEM wood one-CLF.stick=TOP walking.stick PFV-**do.3**

næ-nʑæ-sʰə-mə-ræ-jə. *bældzə* *næ-**n-və*** *næ-nʑæ=ræ*
PFV.DIR-bring.3-IFR-EP-SENS-REP walking.stick PFV.DIR-**AB-do.3** PFV-bring.3=LNK
She made that piece of wood into a walking stick and brought it home, it is said. She made a walking stick and brought it home… (RN: folktale)

6.2.3.8. Applicative prefix *N-*

Even though the current language-internal evidence is insufficient, historical-comparative data from other Gyalrongic languages helps in proposing an applicative prefix *N-* (glossing: APPL) in Geshiza. The distributional locus and phonological form of the applicative prefix are identical with the autobenefactive *N-*. It is nevertheless possible that the prefix *N-* as an applicative marker has a historical origin distinct from the autobenefactive prefix *N-*.

Applicative is a valence-increasing operation, defined as increasing the object arguments by the predicate by one vis-à-vis the basic construction (Polinsky 2013). The verb *qʰæqʰæ* (V2b) 'to laugh' can be made into an applicative *ɴ-qʰæqʰæ* (V4) 'to laugh at someone, scorn or ridicule someone with laughing' with the result of increasing valency of the original intransitive verb into a transitive verb (6.11; notice also how the unmarked absolutive of *sʰə* 'who' shifts into ergative due to applicativisation). No other instances of applicative derivation were attested in the source materials.

(6.11) *rdʑælpə=wo* *dæ-jə=wo:* *'sʰə* *g-ə-qʰæqʰæ-mə-ræ'* […]
chieftain=ERG PFV-say.3=QUOT who **PREF-NACT-laugh.PST.3-EP-SENS** […]

dæ-jə-sʰə-mə-ræ *'sʰu* ***g-ə-ɴ-qʰæqʰoŋ-mə-ræ'*** *dæ-jə.*
PFV-say.3-IFR-EP-SENS who.ERG **PREF-NACT-APPL-laugh.at.PST.1-EP-SENS** PFV-say.3
The chieftain said: 'Who was laughing?' […] 'Who was laughing at me?' he said. (RN: folktale)

The applicative prefix *N-* appears in two instances best characterised as causative: *ʑe ~ ʑæ* (V2b) 'to come' > *n-ʑæ* (V3b) 'to bring, give birth to children' and *wtsæ* 'to be hot' (V1a) > *m-tsæ* (V3b) 'to heat (food)', the preinitial *w* dropping in the latter case. Both causative and applicative are valency increasing operations and similar in introducing a new nominal argument, A in causatives and P in applicatives. Overlap of causatives and applicatives is well attested typologically. Song (1996: 96) shows that this phenomenon originally thought to be a characteristic of the Uto-Atztecan languages, such as Classical Nahuatl, is more widely attested among other Amerindian languages, including Jacaltec (Mayan) and Maidu (Penutian).

Comparative-genealogical evidence for distinguishing an applicative and autobenefactive *N-* is required to further understand the behaviour of the prefix or prefixes in Geshiza. Jacques (2013a) shows that Japhug avails of a moderately productive applicative verbal prefix *nɯ-/nɯɣ-/nɤ-*, likely a cognate with the Geshiza *N-*. The author further argues that even though distinguishing between the Japhug applicative and autobenefactive-spontaneous is difficult on formal grounds, these two prefixes occupy two distinct slots in the Japhug verbal template. Against this backdrop, it is possible that the applicative and autobenefactive prefixes were originally distinct in Geshiza, occupying distinct loci in the verbal template.

6.2.3.9. Reflexive prefix *ɲjæ-*

Geshiza derivational morphology includes a reflexivising prefix *ɲjæ-* (glossing: REFL). The reflexive describes intentional action by an animate controller of the reflexive noun phrase. In their argument indexation properties, reflexive verbs are intransitive and belong to the verb class 2b, having thus only person, but no number distinctions, illustrated in Table 6.33 on the following page. Since Geshiza intransitive verbs lack number distinction, reduplication is optionally used to indicate plurality (6.12; see also §4.3.5.5).

Only three reflexive verbs were attested in the source materials: *v-sʰæ* (V4) 'to kill' > *ɲjæ-sʰæ* (V2b) 'to kill oneself, commit suicide'; *ɲjæ-tsʰi* (V2b) 'to hang oneself'; and *ɲjæ-ʑo* (V1b) 'to go into hibernation'. Of these, *ɲjæ-sʰæ* is clearly most typically reflexive in its function, since it derives a distinctly reflexive verb from a non-reflexive source. In contrast, *ʑo* and *ɲjæ-ʑo* can be used interchangeably for 'to go into hibernation'. Also, the pre-derived expected form **tsʰi* does not occur in contemporary Geshiza, nor can it be elicited, speakers resorting to *wsʰi* 'to strangle' to convey the notion 'to hang someone'. While other reflexive forms with *ɲjæ-* can be elicited, speakers prefer the analytic reflexive construction formed by the pronoun *guədə* 'self' (see §4.5.5) in non-elicited natural speech.

All other valency-changing prefixes in Geshiza consist of a single consonant and are diachronically opaque. In contrast, the reflexiviser *ɲjæ-* is a full syllable, and can thus be traced accurately to its etymological root. The reflexiviser stems from the reflexive pronoun *ɲjæ* 'self' (see §4.5.5). The reflexive prefix *ɲjæ-* is historically related to the Wobzi Khroskyabs *ʁjæ-* (see Lai 2017: 384-387).

Table 6.33. Argument indexation and reflexive derivation

Transitive use	Gloss	Reflexive derivation	Gloss
s^{h}əu	I kill.	*ɲjæ-s^{h}oŋ*	I kill myself
s^{h}oŋ	We kill.		We kill ourselves.
s^{h}e	You (SG) kill.	*ɲjæ-s^{h}æn*	You (SG/PL) kill
s^{h}æn	You (PL) kill.		yourself/yourselves
v-s^{h}æ	S/he kills.	*ɲjæ-s^{h}æ*	S/he/they kill themselves.

(6.12) *xə* *tɕ^{h}əs^{h}o* *ə* *<kəut^{h}uitsə>=ɲə* *æqɛ* ***dæ-ɲjæ-sə~sæ-s^{h}i*** *tɕ^{h}u.*
DEM DM HES scoundrel=PL all **PFV-REFL-RED~kill.3-IFR** CONJ
Then, all the scoundrels had killed themselves, so… (RN: folktale)

6.2.3.10. Repetitive suffix *-lV ~ -rV*

Several Geshiza verbs have a suffix *-lV ~ -rV* (glossing: REP) attached, listed in Table 6.34. As illustrated, the suffix does not affect the valency of a verb and the derivation retains the verb class of its source, one possible exceptional case being *rts^{h}o* (V3a) 'to kick' > *rts^{h}o-lu* (V4) 'to kick'. The repetitive suffix is exceptional by following vowel harmony (see §3.4.2) to a degree, a process largely absent from modern Geshiza. In verbal reduplication (§4.3.5.5.), the stem and not the suffix undergo reduplication: *bjo-la* (V2b) 'to fly' > *bjə~bjo-la* (V2b). The repetitive suffix is placed directly after the root, possibly followed by other derivative suffixes, thus allowing cumulative derivation. Jacques (2019b: §12.4) discusses 'distributed action', a related derivation. Semantically, Geshiza repetitive derivation is very similar to this.

Table 6.34. Repetitive verb derivation in Geshiza

Source	Gloss	Repetitive	Gloss
ɻ̩ri (V2b)	to walk	*ɻ̩ri-ra* (V2b)	to walk
bjo (V2b)	to fly, take off	*bjo-la* (V2b)	to fly
lɣa (V2b)	to become crazy	*lɣa-ra* (V2b)	to behave like crazy
nlo (V3b)	to drill	*nlo-lə* (V3b)	to drill
nwa (V2b)	to be messed up	*nwa-ra* (V2b)	to be messed up
nʐa (V4)	to lick	*nʐa-la* (V4)	to lick
rdʐu (V2b)	to run	*rdʐu-ra* (V2b)	to run
rqe (V3b)	to chew, gnaw	*rqæ-le* (V3b)	to chew, gnaw
ʁgu (V3a)	to hit with the fist	*ʁguə-lu* (V3a)	to hit with the fist
rts^{h}o (V3a)	to kick	*rts^{h}o-lu* (V4)	to kick
wdʐo (V3b)	to grind	*wdʐo-lo* (V3b)	to grind
zla (V3b)	to sing	*zla-la* (V3b)	to chant

This very rare suffix appears to have originally denoted repeated action, i.e. action consisting of repeated components, such as taking a step forward when walking, or biting food once when chewing. The suffix is thus called repetitive suffix here. When a non-suffixed verb exists as an independent lexeme, the difference between suffixed and non-suffixed forms seems to have blurred. In general, the longer suffixed form has become the standard verb: e.g. *ʑri-ra* (V2b) for walking, *bjo-la* (V2b) for flying, *nʑa-la* (V4) for licking.

The clearest contrast is found in the pair *lɣa* (V2b) 'to become crazy' (change of state) > *lɣa-ra* (V2b) 'to behave like crazy' (see line 21 in §15.4 for a demonstration how a mother who lost her child started behaving like crazy, cutting down all the flowers of the lakeside in her distress). Also, a semantic difference is nevertheless maintained in *zla* (V3b) 'to sing' > *zla-la* (V3b) 'to chant (mantras and scripture), i.e. sing something repetitively'. In all, due to its extremely low productivity, the exact semantics of the suffix *-lV ~ -rV* must be analysed trough historical-comparative Gyalrongic studies.

In five cases out of twelve, the vowel of the repetitive suffix identically replicates that of the source stem. In further three cases, the replication is near identical. Also, the case *bjo* 'to fly' > *bjo-la* 'to fly' only superficially diverges from the pattern, since the verb stems from the proto-form *byam 'to fly', exhibiting a regular *-am > *-o* sound change from PTH into contemporary Geshiza. The remaining three cases that appear not to follow vowel harmony might also hide a historical explanation for their behaviour.

The repetitive suffix with vowel harmony is formally identical with the historical nominal suffix *-lV* (see §4.2.5) that equally follows vowel harmony. With the limited historical knowledge at present, it is too early to say whether the case constitutes a pure coincidence or a historical connection between the two exists.

6.2.4. Conversion

The subsections §6.2.2 and §6.2.3 introduced formally marked derivative mechanisms in Geshiza. The language also uses conversion for derivation. Conversion, also called zero derivation, changes the word class of a lexeme without overt formal modification. In Geshiza, conversion creates verbs from nouns (§6.2.4.1) and classifiers from both verbs and nouns (§6.2.4.2). From a diachronic viewpoint, some synchronic instances of conversions in the language may be explainable with loss of tonal alternations and or loss of presyllables.

6.2.4.1. Noun to verb conversion

Geshiza lexicon has roots that appear in both nominal and verbal functions. For instance, in (6.13), the word *skræ* 'dowry, division of property' is used nominally, while the same root is used verbally as 'to give dowry, divide family property' in (6.14). In a similar fashion, *be* 'flood' is used nominally in (6.15) and verbally as 'to flood' in (6.16). The phenomenon is interpreted as verb conversion in which the noun stands as the primary form. In other words, a noun converts its word class into a verb with no change in its overt form.

(6.13) Nominal use: *skræ* (N) ‘dowry, division of property’:

m	***skræ***	*æ-lə*	*n-ə-k^{h}rən=ræ*	[…]
INTERJ	**dowry**	one-CLF.INDEF	PREF-NACT-have.custom.NPST=LNK	[…]

There is a custom concerning the dowry... (RN: personal history;see §2.4.3 for *skræ*)

(6.14) Verbal use: *skræ* (V4) ‘to give dowry, divide family property’:

bəmdʑər-p^{h}ru	*zɣa=ke*	***dæ-sk^{h}rəu.***
month.name-white	ten=DAT	**PFV-give.dowry.PST.1SG**

I gave the dowry on the tenth white day of the *bəmdʑər* month. (RN; personal history; see §2.4.1 for the Geshiza version of the Tibetan calendar)

(6.15) Nominal use: *be* (N) ‘flood’:

o	*bəvi*	*<tɕ^{h}i-jyefən>*	*skæra*	***be***	*dæ-lxua-s^{h}i.*
INTERJ	this.year	seven-month	about	**flood**	PFV-appear.3-IFR

There was a flood in approximately July. (RN: local history)

(6.16) Verbal use: *be* (V1b) ‘to flood, overflow, spil’:

oja	*e*	*groŋ*	***be-ræ.***
INTERJ	DEM	village	**flood-SENS**

This village is going to flood. (RN: folktale)

Semantic reasons consolidate the claim for nominal primacy. For instance, it is far more likely that the root *rts^{h}ənt^{h}əu* had an initial nominal meaning ‘scissors’ before the verbal meaning ‘to cut with scissors’. Second, even though almost all of the nominal base forms consist of single morpheme, the bimorphemic case of *wrə-lə* (water-boiled) ‘hot water, to apply hot water to remove the hair of butchered animals’ clearly demonstrates the primacy of the nominal compound. Following the argument indexation rules, the resulting denominal verbs may take the inverse prefix *v-*: e.g. *ʑə* ‘field’, *v-ʑə* ‘S/he sows (it).’

Converted verbs are semantically transparent only post-factum. In other words, the nominal semantics are recoverable from the verbal conversion form. To illustrate, in *sməu* (V1b) ‘to have wool’, the verbal counterpart ‘wool’ is easily deducible. In contrast, the noun ‘wool’ can theoretically have several verbal counterparts, such as ‘to have wool’, ‘to cover with wool’, or ‘to become wool-like’. Geshiza noun to verb conversions can be divided into several types based on the relationship between the nominal and verbal forms. Of these, instrumental verb conversion is by far most productive in Geshiza, and only a part of the attested cases is given here. Other attested types include inchoative, ornative, adversative, possessive, resultative, additive, and locative, listed in Table 6.35 on the following page. The verbs in the table appear in their infinitive form (see §4.3.6), consequently without a possible inverse prefix *v-* (see §4.3.3.2).

Table 6.35. Verb conversion by semantic category

Type	Example	Noun	Verb
Instrumental	*ɑ̂bæle*	club	to hit with a club
(use N)	*ŋkæræ*	saw	to saw
	ndzær	nail	to nail
	ŋkʰuma	key	to lock
	tɕe	hat	to wear a hat
	zga	saddle	to saddle
	zli	door bolt	to bolt the door
	zrə	broom	to broom
Inchoative	*be*	flood	to flood, overflow, spill
(become N)	*lvo*	ice	to freeze
	nzrə	dew	to form dew
	spo	dry spot, grassland	to dry
	wɕi	sweat	to sweat
	wdʑəu	conflagration	to conflagrate, set ablaze
Ornative	*ɑ̂la*	salary	to rent, hire
(provide with N)	*skræ*	dowry	to give a dowry
	mtɕʰæ	offering	to offer
	vkræɕʰə	blessing	to bless
Adversative	*ɴqæto*	beating	to beat
(suffer from N)	*tsʰu*	beating	to beat
	ɑ̂den	supernatural transmission of sickness	to transmit a sickness supernaturally
Possessive	*nsʰærdʑə*	deep familiarity	to be well familiar
(have N)	*ŋgɔ*	narrow part (body)	to have a narrow part
	pʰə	cost	to cost
	səu	wool	to have, grow wool
Resultative	*zdi*	(stone) wall	to pile up in layers
(result in N)	*mtɕʰərqʰo*	knot	to tie a knot
	wdʑo	flour	to grind
Additive	*mtsʰə*	paint	to paint
(add N)	*lpʰæle*	patch (on clothes)	to put a patch
	wrə-lə	boiled water	to apply boiled water
Locative	*lva*	shoulders	to carry on shoulders
(put into N)	*ʑə*	field	to sow, plant

6.2.4.2. Classifierisation

Derivation of 'lexemic classifiers' is a well-attested phenomenon in South-East Asian languages (Allan 1977: 293). In Geshiza, a part of the classifiers are clearly derivations through conversion, both nouns and less frequently verbs functioning as the source categories. Table 6.36 below shows some illustrative examples. The sources for sortal classifiers remain less traceable than those of mensural classifiers. Only the sortal classifier *æ-pʰo* 'one-CLF.plant' can be traced with certainty to a bound source noun *-pʰo* 'plant', as in *sʰə-pʰo* 'tree'. As discussed in §4.7.2, sortal classifiers are generally older in Geshiza, cognates being attested in related Horpa lects and related languages, such as Khroskyabs. Many mensural classifiers, in contrast, are relative newcomers.

Table 6.36. Classifier derivation from nouns and verbs in Geshiza

Source	Example	Gloss	Derivation	Gloss
Nouns	*a̱mo*	mouth	*æ-wmo*	mouthfuls
	ɣæ	door	*æ-ɣæ*	household units
	-pʰo	plant	*æ-pʰo*	trees and plants
	qʰuə	bowl	*æ-qʰuə*	bowlfuls
	rdi	kettle	*æ-rdi*	kettlefuls
	tɕɔji	spoon	*æ-tɕɔji*	spoonfuls
	wdo	bucket	*æ-wdo*	bucketfuls
Verbs	*lua* (V4)	to hug, embrace	*æ-lua*	bosomfuls of things
	ndə (V3a)	to stab (with a knife)	*æ-ndə*	hits with a knife
	ntsʰɔ (V1b)	to prick	*æ-ntsʰɔ*	hits with a needle
	z-græl (CAUS-V4)	to lay out	*æ-græl*	lines of things
	rbə (V1b)	to be piled up	*æ-rbə*	piles of things
	rtɕʰe (V4)	to tie, bundle up	*æ-rtɕʰe*	bundles of things
	zdi (V3b)	to pile up in layers	*æ-zdi*	layers of things

The derivation of *æ-græl* 'lines of things' fails to qualify for strict conversion, since the prefix of the source verb *z-græl* (V4) 'to lay out' is removed in classifierisation. Also, the derivation of *æ-wmo* 'CLF.mouthful' from the noun *a̱mo* 'mouth' also fails to qualify for a prototypical conversion case, yet the small difference between the two forms has a simple explanation: following a vowel, **ɣmo* 'mouth' has weakened into *wmo*, while the result is *a̱mo* in other cases.

6.3. Compounding

Following the previous discussion on derivation, this section introduces compounding in Geshiza, a major word formation process mostly pertaining to the nominal system of the language. The section is divided into an overview of the primary characteristics of Geshiza compounds (§6.3.1); component stem types in nominal compounds from the viewpoint of their word classes (§6.3.2); classification of nominal compounds for typological comparison (§6.3.3); semantic relations between nominal compound constituents (§6.3.4); bound stems in nominal compounds (§6.3.5); lexical strata in nominal compounds (§6.3.6); and noun incorporation, a marginal phenomenon in the language (§6.3.7).

6.3.1. Overview

Problems and discord beset studies of compounding. Despite extensive research on the topic, scholars have hardly found any universally applicable criteria for defining the phenomenon (Bauer 2017: 1, Lieber and Štekauer 2009: 6). Despite its debated nature, the notion of compounding has nevertheless proved to be useful in linguistics. As discussed in §6.1.1, compounding can be defined as forming new lexemes through adjoining two or more lexemes (Bauer 2003: 40).

Compounding plays a prominent role in Geshiza word formation. In addition to borrowing from Chinese (see §14.3.2) and together with derivation (see §6.2), compounding constitutes the primary means of enriching the language's lexicon. From the viewpoint of the output form, compounding creates nouns and numerals: *rji-tɕæ* (horse-road) 'horse-road, N'; *ɣæ-ŋgæ* (ten-nine) 'nineteen, NUM'. Conversely, nouns, numerals, postpositions, classifiers, verbs, and interrogative pro-forms function as input forms for producing compounds. Geshiza lacks compounds with outputs in other word classes, such as verbal compounds, in a significant manner. Also, noun incorporation in the language discussed in §6.3.7 is highly unproductive, and thus merely a marginal word formation process.

Compounds in Geshiza are characterised by the absence of case enclitics (see §5.3) and other morphology between the component stems that would explicitly encode their relationship. Infrequent exceptions do nevertheless occur, as the examples on the following page illustrate. To illustrate, genitive (6.17) and dative (6.18) case enclitics are marginally present in compounding, as are the unproductive case suffixes (see §5.3.11), e.g. superessive (6.19). If semantically compositional, compounds can nevertheless sometimes be paraphrased into case-marked genitive phrases with similar semantic content. For instance, the compound *kəta-dzi* 'dog food' largely corresponds to the genitive phrase *kəta=je dzi* (dog=GEN food) 'dog's food'.

(6.17) *vʑəpɛ-pʰru*
fourth.lunar.month.GEN-be.white
white days of the fourth lunar month

(6.18) *stæ=ke-mpʰræ-me*
all=DAT-have.relationships-NMLZ:S/A
promiscuous person

(6.19) *ʑə-wo-lxua-me*
field-SUPE-appear-NMLZ:S
things that appear on the field, i.e. crops and other cultivated agricultural products

The compoundhood of *vʑəpɛ-pʰru* can be demonstrated by its grammatical behaviour. If *pʰru* (V1a) 'to be white' were used as an independent verb, rather than a compound constituent, it would behave in verb-like manner, e.g. accepting evidential suffixes. *vʑəpɛ-pʰru* as a whole, however, functions as a copular complement similar to other nouns and ungrammatical of verbs: *vʑəpɛ-pʰru ŋuə-ræ* 'It is the white day period of the fourth lunar month'.

Geshiza coins compounds by means of juxtaposing stems without morphological alternation in most cases. Some old compounds are nevertheless explicitly marked for compoundhood by means of the compound stem (see §4.2.6). The phenomenon illustrates the typological fact that compounds may exhibit special forms of their member morphemes that do not appear in other contexts (Aikhenvald 2007b: 29). Compound stems occur cross-linguistically in compounding contexts: e.g. Finnish *hevonen* ~ *hevos-* 'horse': *hevoskyyti* (horse-ride) 'horse ride'.

In Geshiza, only the left-hand constituent takes the compound stem form that differs from the freestanding form by means of vocalic quality, the relevant vocalic changes illustrated in §4.2.6. For instance, the noun *sni* 'nose' changes into its compound stem form *snæ-* in the compound *snæ-dəu* (nose-poison) 'snuff'. In a larger context, the vowel alternation of compound stems ranks among the phonological measures, also including tonal and stress patterns, vowel harmony, and vowel and consonant alternation (e.g. inter-segmental fricative voicing, vowel deletion) that typologically characterise compounding in the world's languages (Lieber and Štekauer (2009: 11).

The morphophonemics of the language dictate that when the left-hand compound stem ends and the right-hand compound stem begins with /r/, only one /r/ remains after simplification: *bær-* 'middle' and *rtsəu* 'floor' form the compound *bær-tsəu* 'middle floor'. As a convention, the initial /r/ from the second stem is left out in this grammar.

Also, historical suffixes (see §4.2.5) are often removed to make a constituent eligible for compounding. To illustrate, the words *zdo-mæ* 'cloud' and *də-va* 'tobacco' both contain the

historical suffixes *-ma* and *-va,* respectively. In compounds, such as *zdo-ɲji* (cloud-red) ‘red cloud’, and *də-mkʰə* (tobacco-smoke) ‘tobacco smoke’, the suffixes are absent. Some compounds, however, fail to follow the requirement. In *zdoma-ɕəu* (cloud-thread) ‘thread made of clouds, a mythical material in a traditional story)’, the historical suffix *-ma* is present in the compound. The following conclusion can thus be drawn. In old established compounds created in the distant past and consisting of items from old lexical strata, the historical suffixes are removed to enable compounding. In contrast, in newer compounds the suffixes are present, since with passing of time, the speakers have become less aware of the historical compositional nature of nouns containing affixes.

From a diachronic viewpoint, many di- or polymorphemic words in Geshiza originate from historical compounds whose compoundhood has become either partially or completely opaque for contemporary speakers. Especially borderline cases of partial recognizability present a problem of distinguishing compounds from non-compounds. For instance, *jæ-ɣuə* ‘rooftop’ that is perceived as an indivisible lexeme by the Geshiza nevertheless consists of the component stems *jo ~ jæ-* ‘house’ and *ɣuə* ‘head’, both of which remain in frequent use in Geshiza as independent lexical items. Also, *rastu* ‘egg’ whose compoundhood is even less clear for the speakers consists of *ra-* ‘chicken’ and a historical morpheme *-stu* ‘egg’. Consequently, compoundhood is best defined through a prototype. Prototypical Geshiza compounds consist of two potentially free-standing stems, both of which are in use in the contemporary language, the result of compounding being ideally, though not necessarily, recognisable as a compound for the native speakers. Cases deviating from the prototype, such as compounds including bound stems introduced below, exhibit compoundhood to a lesser extent.

Compounding in Geshiza is recursive in the sense that existing compounds may be further compounded to form a binary-branching hierarchical structure with new ‘second level’ compounds, as in [[*tsʰæ-ji*]-*dzi*] (goat-sheep-fodder) ‘goat and sheep fodder’ consisting of the compound *tsʰæ-ji* ‘goat and sheep’ and the noun *dzi* ‘food’. Practical factors, however, limit the process of further compounding in the source materials to the ‘second level’.

Almost all compounds in Geshiza are nominal compounds, and apart from noun incorporation, the subsequent discussion focuses on this compound type. Here nominal compound is defined broadly as any compound whose output category is a noun regardless of the word class of its constituent stems, thus including forms, such as $[V+N]_N$. Nevertheless, $[N+N]_N$ represents the canonical structure of a nominal compound due to its highest share among all possibilities. In addition to nominal compounds and noun incorporation, compounding also takes place in numerals (see §4.6.1 for the arithmetic relationships existing between the component stems in numeral compounds of native Geshiza numerals). As cross-linguistically common, complex numbers involving different units are generally formed through compounding: *wnæ-ɾjə* (two-hundred) ‘two hundred’.

6.3.2. Component stem types in nominal compounds

Even though nominal compounds most commonly comprise two nominal stems, the component stems are not restricted to nouns only. Geshiza exhibits six common nominal compound types from the viewpoint of component stems' word classes: [N+N], [POST-N]$_N$, [N+POST]$_N$, [V+N], [N+V], and [V+V], shown in Table 6.37 below. In other words, in addition to nouns, verbs and postpositions also qualify for major types of component stems, either as the left-hand or the right-hand component. The reader is reminded here that in Geshiza, postpositions are part of the 'macro-nominals' (see §4.1) and thus close to nouns in their morphosyntactic properties. Since the head determines the word class of the compound, all nominal compounds consisting of a mixture of nominal and non-nominal stems have a noun as the head. Also, when compounded, verbs appear in the infinitive (see §4.3.6), i.e. in the mon-past stem devoid of any argument indexation morphology.

Table 6.37. Major compound types in Geshiza

Type	Example	Gloss	Stem 1	Stem 2
[N+N]$_N$	*lə-s^{h}i*	pear tree	*lə* 'pear'	*s^{h}i* 'tree'
	tɕo-ndzær	iron nail	*tɕo* 'iron'	*ndzær* 'nail'
[POST+N]$_N$	*noŋ-ts^{h}ægzə*	undergarment	*noŋ* 'in, inside'	*ts^{h}ægzə* 'clothes'
	tɕ^{h}a-jæɣuə	4th floor rooftop	*tɕ^{h}a* 'on, above'	*jæɣuə* 'rooftop'
[N+POST]$_N$	*t^{h}əu-tɕ^{h}a*	upper part of stove	*t^{h}əu* 'stove'	*tɕ^{h}a* 'on, above'
	ʑæbrəu-ɲo	back of palm	*ʑæbrəu* 'palm'	*ɲo* 'behind, back'
[V+N]$_N$	*mtsi-ʑo*	sharpening stone	*mtsi* 'to sharpen'	*ʐʑo* 'stone'
	zdə-wrə	irrigation water	*zdə* 'to irrigate'	*wrə* 'water'
[N+V]$_N$	*məu-ɲa*	pupil (eye)	*məu* 'eye'	*ɲa* 'to be black'
	wrə-lə	boiled water	*wrə* 'water'	*lə* 'to boil'
[V+V]$_N$	*ntɕ^{h}æ-vdəu*	old or young	*ntɕ^{h}æ* 'to be old'	*vdəu* 'to be young'
	wzə-wre	few or many	*wzə* 'to be few'	*wre* 'to be many'

In addition to the six common types illustrated above, numerals, pro-forms, and non-marked adjectives also appear as compound stems in nominal compound formation, as illustrated in Table 6.38 on the following page. Also, the common denominator for these word classes is that they to varying degrees exhibit nominal properties and belong to the group of 'macro-nominals'. In addition, the source materials include a single instance of an ideophone in compounding. The compound *s^{h}i-qɔqɔ* 'woodpecker' consists of the noun *s^{h}i* 'wood' and the onomatopoeic *qɔqɔ* 'sound of knocking' that lacks nominal or verbal use and must thus be interpreted as an ideophone. Typologically, bird names constitute a semantic domain of onomatopoeic words (Marttila 2010: 95).

Table 6.38. Marginal compound types in Geshiza

Type	Example	Gloss	Stem 1	Stem 2
[POST+POST]$_N$	*tɕʰa-və*	up and/or down	*tɕʰa* 'up, above'	*və* 'down, below'
[NUM+N]$_N$	*wsʰu-rko*	tripod	*wsʰu* 'three'	*rko* 'leg'
[N+NUM]$_N$	*lə-ɣæmne*	12 zodiac signs	*lə* 'zodiac sign'	*ɣæmne* '12'
[Q+N]$_N$	*ætɕʰə-mdɔ*	which colour	*ætɕʰə* 'what'	*mdɔ* 'colour'
[N+Q]$_N$	*ɕintɕʰi-xazi*	which weekday	*ɕintɕʰi* 'weekday'	*xazi* 'how many'
[ADJ+N]$_N$	*tʰævæle-vɕæpa*	nonsense	*tʰævæle* 'stupid'	*vɕæpa* 'talk(ing)'
[N+IDEO]$_N$	*sʰi-qɔqɔ*	woodpecker	*sʰi* 'wood'	*qɔqɔ* 'ideophone'

Most compounds in the languages of the world contain a head and modifier, in which case the compound is typically a hyponym of the head (Pepper 2016: 284). For instance, the Geshiza compound *rdʑæ-mele* (Chinese-noodles) '*guanmian*, type of Chinese noodles' refers not to any kind of noodles, but to a hyponym of *a̱mele,* a specific kind of noodles. When a head is present in Geshiza compounds, it determines the word class of the output compound. Typologically, most languages tend to systematically exhibit either left or right headedness in a specific compound type or across all available compound types.[57]

The headedness of compounds in Geshiza overwhelmingly follows the pattern modifier-head. For instance, in the compound *rtsæ-qrə* (deer-antlers) 'deer antlers', the right-hand head *qrə* 'antler' determines the semantic field of the compound, the modifier *rtsæ* 'deer' narrowing down the possible semantic range of the output compound. Headed compound types with a verb component, namely [V+N]$_N$ and [N+V]$_N$, exhibit inconsistency in the placement of the head noun. The following conclusion arises on the basis of the attested cases. In [V+N]$_N$, the compound type is subordinate (see §6.3.3), and the verbal stem comes from a transitive verb. In contrast, the compound type [N+V]$_N$ is attributive (see §6.3.3), the verbal stem of which is an intransitive stative verb.

6.3.3. Classification of nominal compounds

Compounds can be classified for typological cross-linguistic comparison or for language-specific analysis. Unfortunately, ongoing disagreement characterises the research on compound classification (Bauer 2017: 2). Sanskrit-based terminology, such as *dvandva* and *bahuvrīhi*, are avoided here, since the terms are frequently misused in the literature (Scalise and Bisetto 2009: 36). Instead, the terminology and tripartite model of Bisetto and Scalise (2005) is adopted for naming and classifying Geshiza nominal compounds. Despite its shortcomings, the model in its 2005 version remains as the best typological classification of compounds.

[57] For an analysis of Nizaa, a Niger-Congo language spoken in Cameroon, questioning the typological universality of the 'Canonical Head Position hypothesis', see Pepper (2016).

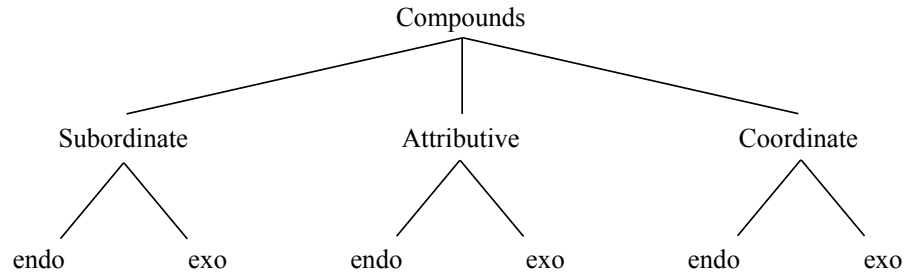


Figure 6.2. Classification of compounds according to Bisetto and Scalise (2005)

As the fundamental idea, the model shown in Figure 6.2 above proposes that the relations between compound constituents equal those of syntactic constructions. Consequently, the model divides compounds into three major categories of subordination, attribution, and coordination based on the syntactic relationship that exists between the constituents. Each category further distinguishes endocentric (head constituent present) and exocentric (head constituent absent) compounds. Following Aikhenvald (2007b: 30), 'endocentric compounds denote a subclass of items referred to by one of their elements', while 'exocentric compounds denote something which is different from either of their components'. Applying the model to Geshiza, the nominal compound types of the language are established as follows, summarised in Table 6.39:

Table 6.39. Classification of Geshiza compounds

Main type	Head	Example	Stem 1	Stem 2
Subordinate	endo	*wʑə-bət^{h}a* 'bamboo stick'	*wʑə* 'bamboo'	*bət^{h}a* 'stick'
	exo	*k^{h}æ-st^{h}ə* 'cork'	*k^{h}æ* 'mouth'	*st^{h}ə* 'to squeeze'
Attributive	endo	*ts^{h}ə-p^{h}ru* 'white dirt'	*ts^{h}ə* 'dirt'	*p^{h}ru* 'to be white'
	exo	*ʐjar-ɲa* 'bad person'	*ʐjar* 'heart'	*ɲa* 'to be black'
Coordinate	endo	*ts^{h}æ-ji* 'goats and sheep'	*ts^{h}æ* 'goat'	*ji* 'sheep'
	exo	*nærdʑa-ɕ^{h}æmu* 'name'	*nærdʑa* 'name'	*ɕ^{h}æmu* 'name'

Far from being self-evident, the division into endocentric and exocentric compounds may depend on interpretation, and thus often lacks relevance (Fabb 1998: 67). Against this problem, Bauer (2017: 69) raises the question whether all exocentric compounds can be explained through figurative speech, especially metonymy being the applied mechanism. The proposal works well in Geshiza, where many exocentric compounds appear to be built on figurative language: eg. *s^{h}ə-ɲoŋ* (tree-ear) 'tree-ear, wood ear, edible tree fungus'. In other words, *ɲoŋ* 'ear' can be seen as the head of this compound constructed on a figure of speech, making it endocentric. Bauer's proposal questions the validity of binary endocentric-exocentric division in compound classification and must be addressed in detail in future typological research.

Subordinate compounds

In subordinate compounds, a complement relation, for instance an 'of relation' (e.g. apron string), holds between the constituents (Bisetto and Scalise (2005: 326). Subordinate compounds abound in Geshiza and they are head-final when a head is present. The head describes the overall meaning of the subordinate compound, the preceding modifier restricting the meaning. In Geshiza, the composition of most subordinate nominal compounds follows the pattern $[N+N]_N$, illustrated in Table 6.40:

Table 6.40. $[N+N]_N$ subordinate compounds in Geshiza

Compound	Gloss	Stem 1	Stem 2
ɪji-dzi	horse fodder	*ɪji* 'horse'	*dzi* 'food'
rtsəbrə-smæn	cold medicine	*rtsəbrə* 'cold'	*smæn* 'medicine'
s^{h}i-bət^{h}a	wooden stick	*s^{h}i* 'wood'	*bət^{h}a* 'stick'
tsələ-rŋæma	cat tail	*tsələ* 'cat'	*rŋæma* 'tail'
wo-nt^{h}u	bear meat	*wo* 'bear'	*nt^{h}u* '(fat) meat'

Types $[POST+N]_N$ and $[N+POST]_N$ also appear among subordinate compounds, yet with low frequency, as shown in Table 6.41. Of the postpositions, *tɕ^{h}a* 'on, above, at the time'; *və* 'down, below'; *noŋ* 'in, inside'; *bær-ma* 'among, between, while'; *a̱tɕil ~ a̱tɕin* 'middle'; *ŋui* 'before'; and *ɲo* 'after' appear in nominal compounds. Depending on the postposition, their function stands either as the left-hand modifier or right-hand head. As mentioned in §6.3.1, historical affixes drop in compounding, and this applies to the postposition *bær-ma* as well.

Table 6.41. $[POST+N]_N$ subordinate compounds in Geshiza

Postposition	Position	Example	Second stem
tɕ^{h}a	left	*tɛ^{h}a-jæɣuə* '4th floor rooftop'	*jæɣuə* 'rooftop'
	right	*t^{h}əu-tɕ^{h}a* 'upper part of stove''	*t^{h}əu* 'stove'
və	left	*və-jæɣuə* '3rd floor rooftop'	*jæɣuə* 'rooftop'
		və-mærmi 'beard'	*mærmi* 'facial hair'
noŋ	left	*noŋ-k^{h}ue* 'inner room'	*-k^{h}ue* 'room'
		noŋ-lma 'inner fold'	*lma* 'fold (in clothing)'
bær-(ma)	left	*bær-tsəu* 'middle floor'	*rtsəu* 'floor'
a̱tɕil ~ a̱tɕin	right	*ɕ^{h}uɔ-tɕin* 'midnight'	*ɕ^{h}ua* 'night'
ɲo	left	*ɲo-sni* 'following day'	*sni* 'day'
	right	*qa-ɲo* 'other side of mountain'	*qa* 'mountain'
ŋui	left	*ŋui-sni* 'previous day'	*sni* 'day'
	right	*mdzo-ŋui* 'forenoon, before noon'	*mdzo* 'noon'

In addition, several verbs appear in subordinate nominal compounds, generally as the left-hand modifier of the following head. This is illustrated in Table 6.42 below. In such cases, the relationship between the component stems exhibits two patterns: the original verb and its object (1) and the original verb and an instrument (2). Only rarely does the verb appear as the right-hand component: *wrə-bjo* (water-to.fly) 'dragonfly', *kʰa-zgəu* (opening-to.cover) 'lid.' In such cases, the subordinate compound is exocentric, consequently lacking a head and non-reduceable to either of the component stems.

Table 6.42. $[V+N]_N$ subordinate compounds in Geshiza

Type	Example	Gloss	Stem 1	Stem 2
1	*kʰuæ-dʑa*	type of Geshiza tea	*kʰuæ* 'to churn'	*dʑa* 'tea'
	tʰi-wrə	drinking water	*tʰi* 'to drink'	*wrə* 'water'
	tʰo-mele	hand-pulled noodles	*tʰo* 'to pull'	*a̱mele* 'noodles'
2	*mtsi-ʑo*	sharpening stone	*mtsi* 'to sharpen'	*a̱ʑo* 'stone'
	tɕi-zga	riding saddle	*tɕi* 'to ride'	*zga* 'saddle'
	zdə-wrə	irrigation water	*zdə* 'to irrigate'	*wrə* 'water'

Subordinate compounds with the form $[N+V\text{-}NMLZ]_N$ consisting of a nominalised verb as the head and its erstwhile object as the modifier also exist (Table 6.43). Sharing characteristics with what have been described as 'synthetic compounds' since the pioneering work of von Schroeder (1874) in Indo-European linguistics, in Geshiza they predominantly contain an agentive nominalisation of a transitive verb with a former object of the verb (type 1). In addition, instrumental nominalisations (type 2) and locative nominalisations are also subject to compounding (type 3). Types 1-3 all include an erstwhile object as the modifier. In addition to object arguments, subject and location infrequently appear as the left-hand nominal modifiers: *skærva-ɕə-ko* (pilgrimage-go.INF-NMLZ.LOC) 'place for pilgrimage', *lmə-ma-me* (name-NEG.EXV-NMLZ:S) 'person who lacks fame'. Attested verbs in such cases are limited to *ɕə* (V2b) 'to go', *də* (V1b) 'to exist, inanimate', and *ma* (V1b) 'to not exist, inanimate'.

Table 6.43. $[N+V\text{-}NMLZ]_N$ subordinate compounds in Geshiza

Type	Example	Gloss	Verb	Object
1. Agentive	*snote-vɕæ-me*	storyteller	*vɕæ* 'to tell'	*snote* 'story'
	vdzi-sʰæ-qʰua	murderer, killer	*v-sʰæ* 'to kill'	*vdzi* 'person'
2. Instrumental	*ɕə-rɣi-je*	toothbrush	*rɣi* 'to wash'	*ɕə* 'tooth'
	sʰi-kʰuæ-je	wood cutting tool	*v-kʰuæ* 'to cut'	*sʰi* 'wood'
3. Locative	*dʑa-sti-ko*	tea storing place	*sti* 'to put'	*dʑa* 'tea'
	dʑədə-zdʑo-ko	school	*zdʑo* 'to stydy'	*dʑədə* 'book'

Two analyses are possible for Geshiza [N+V-NMLZ]$_N$ compounds: 1. [[N]-[V-NMLZ]$_N$]$_N$ and 2. [[N-V]$_V$-NMLZ]]$_N$, illustrated with *ʈʂʰetsə læ-me* (car-to.drive-NMLZ)'driver' (6.20):

(6.20) 1. [[*ʈʂʰetsə*]$_N$-[*læ-me*]$_{NMLZ}$]$_N$
2. [[*ʈʂʰetsə-læ*]$_V$-*me*] $_{NMLZ}$]$_N$

Considering that incorporation only plays a limited role in Geshiza grammar (see §6.3.7), and that the language lacks nominal incorporations, such as **ʈʂʰetsə-læ* (car-drive) 'to drive a car', alternative 1. presents itself as the more likely one. Consequently, since the verb is nominalised in [N+V-NMLZ]$_N$ compounds, they merely constitute a special case of [N+N]$_N$ subordinate compounds, without need to establish a new compound category for the language. They do, however, differ from ordinary subordinate compounds by having more explicit semantic linking between the constituent stems (see §6.3.4 below for semantic relations between nominal compound constituents). This is due to 'argument heritance', a term from the context of English synthetic compounds by Olsen (2014: 49). In other words, the erstwhile verb explicitly determines the relationship between the constituent stems in the compound.

Attributive compounds

In attributive compounds, a modifier expresses a property or acts as a metaphorical attribute of a noun (Bisetto and Scalise (2005: 327). Stative verbs semantically akin to adjectives frequently appear as modifiers in compounds. Exceptionally in the language, all Geshiza attributive compounds are left-headed take the form [N+V]$_N$, demonstrated in Table 6.44. They are also far less frequent than subordinate compounds.

Table 6.44. Attributive compounds in Geshiza

Compound	Gloss	Stem 1	Stem 2
ræ-ɲa	black horse	*ɾji-* ~ *ræ-* 'horse'	*ɲa* 'to be black'
rtɕʰæ-ɲji	red dirt, red clay	*rtɕʰæ-* 'dirt, clay'	*ɲji* 'to be red'
sʰə-rgæn	old tree	*sʰi* ~ *sʰə-* 'tree'	*rgæn* 'to be old'
wrə-kʰo	cold water	*wrə* 'water'	*rkʰo* 'to be cold'

In the original classification of Bisetto and Scalise (2005), the modifier was listed as either an adjective or noun. In Geshiza, however, compoundability of adjectives presents a problem of analysis. Sequences of N ADJ, such as *ʑa gæ-wji* (hand ADJZ-light) 'generous person' resemble the English 'black(-)bird' case in which the sequence of black and bird may either refer to any bird with black colour or to distinct bird species, depending on the applied stress. In Geshiza, however, *gæ-wji* presents no distinct stress patterns, and it is thus best interpreted as an adjectival modifier used metaphorically, rather than an adjectival compound stem.

Coordinate compounds

Coordinate compounds lack internal subordinate structure and require the constituents to stand in 'natural coordination', the denotata of the constituents frequently, naturally, or traditionally occurring together (Bauer 2017: 85). Coordinate compounds can be seen to possess two heads (Fabb 1998: 67). As many issues pertaining to compounding, the issue nevertheless lacks universal agreement in the literature.

Coordinate nominal compounds are rare in Geshiza and by far outnumbered by the attested instances of the other two compound types. The existing coordinate nominal compounds nevertheless appear frequently in discourse. Due to their scarcity, all attested incontrovertible instances with semantically clear constituent members are listed in Table 6.45 on the following page, excepting numerous compound names used by the Geshiza.

In coordinate compounds, the order of the coordinands is normally fixed and cannot be changed arbitrarily. For instance, 'black and/or white' is fixed in the order *pʰru-ɲa* (white-black) and the opposite **ɲa-pʰru* is ungrammatical. Also, when the coordinate compounds involve antonymic stative verbs, a homorganic nasal occasionally surfaces in the first member of the compound: *m-bær-bji* 'high and/or low'; *n-dʑi-lji* 'long and/or short'; *n-tsʰo-luə* 'thin and/or thick'; *n-tɕʰæ-vdəu* 'big and/or small, old and/or young'. These forms resemble the autobenefactive describing spontaneous action, e.g. *tɕʰæ* (V2b) 'to be big' > (V2b) *n-tɕʰæ* 'to grow bigger, to grow up' (see §6.2.3.7). The diachronic reason for their presence in coordinate compounds remains unknown, and the homorganic nasals may also derive from another source.

Most attested coordinate nominal compounds in the source materials are endocentric. For instance, *væ-mæ* 'father and mother' consists of *væ* 'father' and *mæ* 'mother'. Even though the compound idiomatically translates as 'parents' into English, it would be wrong to claim that it is exocentric, referring to a distinct concept 'parents' existing in another language, rather than to the sum of its constituent parts in Geshiza. Frequent compound names referring to an individual, such as the female personal name *nærdʑa-ɕʰæmu*, are nevertheless exocentric (see §2.3.4 for a brief discussion on Geshiza names).

Table 6.45. Coordinate compounds in Geshiza

Example	Gloss	Stem 1	Stem 2
ą̊sær-ɤɲən	gold and/or silver	*ą̊sær* ‘gold’	*ɤɲən* ‘silver’
bə-wʑa	thin and/or thick	*bə* ‘to be thin’	*wʑa* ‘to be thick’
konlu-tɕæ	(modern) road	*konlu* ‘road’	*tɕæ* ‘road’
ko-vi	year	*ko-* ‘year’	*-vi* ‘year’
læmæ-bəʑə	young man who lies	*læmæ* ‘liar’	*bəʑə* ‘boy, young man’
lɣuə-sme	disabled woman	*lɣuə* ‘disabled, N’	*sme* ‘woman’
lɣuə-vdzi	disabled man	*lɣuə* ‘disabled, N’	*vdzi* ‘man’
ɲjɔ-sme	female servant/serf	*ɲjɔ* ‘servant, serf’	*vdzi* ‘man’
ɲjɔ-vdzi	male servant/serf	*ɲjɔ* ‘servant, serf’	*sme* ‘woman’
rko-ʑa	hands and/or legs	*rko* ‘leg’	*ʑa* ‘hand’
ma-zə	mother and a child	*mæ ~ ma-* ‘mother’	*zi ~ -zə* ‘child’
m-bær-bji	high and/or low	*bær* ‘to be low’	*bji* ‘to be high’
n-dʑi-lji	long and/or short	*dʑi* ‘to be long’	*lji* ‘to be short’
ns^{h}o-ą̊næ	bright and/or dark	*ns^{h}o* ‘to be bright’	*ą̊næ* ‘to be dark’
n-ts^{h}o-luə	thin and/or thick	*ts^{h}o* ‘to be thin’	*luə* ‘to be thick’
n-tɕ^{h}æ-vdəu	big and/or small, old and/or young	*tɕ^{h}æ* ‘to be big, old’	*vdəu* ‘to be small, young’
ŋui-ɲo	first and/or after	*ŋui* ‘first, before’	*ɲo* ‘after’
rdʑæ-bæ	Chinese and/or Tibetan	*rdʑæ* ‘Chinese’	*bæ* ‘Tibetan’
rkəmæ-bəʑə	thieving young man	*rkəmæ* ‘thief’	*bəʑə* ‘boy, young man’
rtæ-ɖʐi	horses and/or mules	*rtæ-* ‘horse’	*ɖʐi* ‘mule’
s^{h}ə-p^{h}o	tree	*s^{h}i ~ s^{h}ə-* ‘tree’	*-p^{h}o* ‘tree, plant’
tɕ^{h}a-və	up and/or down	*tɕ^{h}a* ‘up, above’	*və* ‘down, below’
va-zə	father and a child	*væ* ‘father’	*zi ~ -zə* ‘child’
væ-mæ	father and mother	*væ* ‘father’	*mæ* ‘mother’
vdzi-sme	men and/or women	*vdzi* ‘man’	*sme* ‘woman’
wzə-wre	few and/or many	*wzə* ‘to be few’	*wre* ‘to be many’

6.3.4. Semantic relations between nominal compound constituents

The exact nature of the semantic link between the nominal compound constituents is often hard to capture. This link cannot be deduced form the compound constituents themselves (Pepper 2016: 296). For instance, in common use, a *car-key* is a key for the car and not a key in the shape of a car while a *Buddha statue* is an iconographical representation of a buddha and an embodiment of his or her spiritual essence, not any statue *for* Buddha, for example. Nevertheless, when the meaning of a compound and its constituent stems are known, their semantic relationship is possible to pin down *a posteriori*.

Previous scholarship tried to reduce the relationships into classificatory systems with a finite number of parameters, mostly focusing on nominal compounding and complex nominals in English (e.g. Levi 1978; Jackendoff 2010). Nevertheless, a typological semantic classificatory system for nominal compound constituent relationships is still lacking, and might not even be feasible, at least before more data from languages of the world has been obtained.

Below follows a discussion of semantic relationships between nominal constituents in Geshiza. The classificatory system aims to include the minimal number of necessary categories while describing the semantic link as precisely as possible. Due to differences in the encoded relationships, the three nominal compound types of subordinate, attributive, and coordinate must be discussed separately.

Subordinate compounds

Table 6.46 on the following page the semantic link between constituents of subordinate compounds in Geshiza. Primary semantic links in this compound type consist of nine types. Analysed at a higher level, these nine types form three macro-groups: SOURCE, PURPOSE, and POSSESSION. In SOURCE, the modifier contributes to the existence of the head, e.g. by being its causer or source material. For instance, in the subclass CAUSE, *kəta-mæræ* 'dog's footprint' embodies a semantic relationship in which the modifier *kəta* 'dog' causes the existence of the head *mæræ* 'footprint'.

In PURPOSE, the head has a purposive relationship with its modifier. To illustrate, in the subcategory USE, *ɾji-zga* 'horse-saddle' is a tool *zga* 'saddle' used for *ɾji* 'horses'. The subcategory CONTAINER can be seen to belong to the macro-category of PURPOSE, since the relationship it encodes is often purposive and mostly interchangeable with the category USE. The semantic relationship in *dəva-xoxo* (cigatette-pack) 'cigarette pack' can be interpreted both as CONTAINER (package containing cigarettes) and USE (package used for cigarettes). Yet, the opposite does not hold. In other words, instances of USE frequently cannot be conceptualised by means of the category CONTAINER. The tool *ræ-wdʑə* (turnip-slicer) 'turnip slicer' is used for the turnips, but does not contain them. The categories CONTAINER and USE are both consequently justified in the classificatory system.

In POSSESSION, the modifier *sensu lato* possesses the head. PART-WHOLE relationships, such as *tsələ-ɳæma* (cat-tail) 'cat's tail' constitute an inalienable possessive relationship. The possessive relationship may arise from LOCATION, a ground that has a figure: *qa-qlo* (mountain-valley) 'mountain valley'. In addition, ASSOCIATION constitutes a subcategory of possession. *rdʑæ-mdʑə* (Chinese-dance) 'Chinese-dance' is a dance that exists in the Chinese cultural domain, thus possessed by that culture. Encoding all the tree semantic relationships under the macro-category of POSSESSION follows cross-linguistic tendencies. Since the pioneering research of Lyons (1968) it has become clear that the semantic space of location, existence, and possession frequently exhibits considerable overlap in the world's languages.

Table 6.46. Major semantic relationships between constituents in subordinate compounds

Macro type	Type	Example, literal translation	Gloss
SOURCE	CAUSE	*də-mkʰə* 'tobacco-smoke'	tobacco smoke
	H is caused by M	*kəta-mæræ* 'dog-footprint'	dog's footprint
		wrə-pʰə 'water-costs'	water bill
		wmæ-stʰi 'wound-mark'	scar
	AGENTIVE-INSTRUMENTAL	*ko-kʰe* 'kettle-bread'	bread made in kettle
		rgo-ɕʰə 'cow-milk'	cow milk
	H is made by M	*skʰrəu-rastu* 'ant-egg'	ant egg
		wəzə-mdʑo 'bird-nest'	bird nest
	MATERIAL	*ʂasær-rkoŋna* 'gold-earring'	golden earrings
	H is made of M	*mbrɛ-pə* 'rice-candy'	rice candy/cracker
		sʰi-rjo 'wood-fence'	wooden fence
		tɕo-bri 'iron-chain'	iron chain
	ORIGIN (spatio-temporal)	*ʂana-dzo* 'ancient-bridge'	ancient bridge
		rgo-ɕʰə 'cow-milk'	cow milk
	H originates from M	*snæ-sʰe* 'nose-blood'	nosebleed
		wəzə-rtɕɔpa 'bird-dung'	bird dung
PURPOSE	CONTAINER	*dəva-xoxo* 'cigarette-pack'	cigarette pack
	H contains M	*qʰælo-dʑa* 'walnut tea'	walnut tea
		tɕʰə-ʑə 'water-field'	water field
		wrə-ɕuæ 'water reservoir'	water reservoir
	USE	*ræ-wdʑə* 'turnip-sickle'	turnip slicer
	H is used for M	*rji-zga* 'horse-saddle'	(horse) saddle
		tʰi-wrə 'to.drink.INF-water'	drinking water
		tsʰoŋ-kʰaŋ 'trading-house'	drinking water
POSSESSION	PART-WHOLE	*ɕʰæmto-lo* 'billhook-handle'	billhook handle
	H is part of M	*mbrɛ-lbə* 'rice-stalk'	rice stalk
		sʰə-var 'tree branch'	tree-branch
		tsələ-rŋæma 'cat-tail'	cat tail
	LOCATION (spatio-temporal)	*bær-tsəu* 'middle-floor'	middle floor
		ɣuə-rmi 'head-hair'	hair
	H is in M	*luɕʰə-kʰætʰa* 'trouser-button'	trouser button
		we-kʰə 'home dog'	dog kept at home
	ASSOCIATION	*bæ-tsʰægzə* 'Tibetan-clothes'	Tibetan clothes
	H belongs to the domain of M	*gəɕʰo-dzi* 'evening-food'	dinner
		rdʑæ-mdʑə 'Chinese-dance'	Chinese dance
		stɔ-lə 'tiger-year'	Year of Tiger

Attributive compounds

In contrast to subordinate compounds, the classification of attributive nominal compounds presents no problems. In all cases, the modifier is a PROPERTY of the head, either concretely or through a figure of speech. For example, the modifier *ɲa* (V1a) 'to be black' conveys a property to its head in *væ-ɲa* (pig-be.black) 'black or dark-skinned pig'.

Coordinate compounds

Geshiza coordinate compounds exhibit three kinds of semantic relationships between the constituents A and B. The referent consists of both A and B that are distinct entities (additive relationship or alternatively, the referent is either A or B (1) The referent consists of both A and B that are the same or a near-synonymous entity, namely encoding a tautological relationship (2). The referent is simultaneously both A and B, marking a copulative relationship (3). It should be noted that the copulative relationship established here for Geshiza differs from co-compounds (copulative compounds) that Wächli (2005: 5) in a typological study on formal and semantic criteria defines as compounds that 'express natural coordination, coordination of items which are expected to co-occur, which are closely related in meaning, and which form conceptual units' (small capitals in the original). Following Wächli (2005: 7), a compound, such as *læmæ-bəʑə* (liar-boy) 'young man who lies' lacks a close lexico-semantic relationship between the constituent parts and is better called an appositional compound. On the basis of the three introduced Table 6.47 below summarises the three major types of semantic relations existing in Geshiza coordinate compounds:

Table 6.47. Semantic relationships in Geshiza coordinate compounds

Type	Example	Gloss	Stem 1	Stem 2
Additive-	*tsʰæ-ji*	goats and/or sheep	*tsʰæ* 'goat'	*ji* 'sheep'
alternative (1)	*wzə-wre*	few and/or many	*wzə* 'to be few'	*wre* 'to be many'
Tautological	*konlu-tɕæ*	(modern) road	*konlu* 'road'	*tɕæ* 'road'
(2)	*sʰə-pʰo*	tree	*sʰə-* 'tree'	*-pʰo* 'tree, plant'
Copulative	*læmæ-bəʑə*	young man who lies	*læmæ* 'liar'	*bəʑə* 'boy'
(3)	*lɣuə-sme*	disabled woman	*lɣuə* 'disabled'	*sme* 'woman'

Finally, forming quality and degree nouns from antonymic lexemes is a regional feature of East Asia, as in Tibetan: e.g. WT *che chung* (big-small) 'size'. While coordinating compounds comprising two antonymic stative verbs might have historically served a similar function in Geshiza, the source materials lack any evidence to corroborate the claim in the contemporary language. As a result, the coordinate compound *wzə-wre* 'few and/or many' cannot be used for the abstract notions number or amount, for instance.

6.3.5. Bound stems in nominal compounds

As mentioned in §6.3.1, prototypical compounds in Geshiza consist of two potentially free-standing stems that remain still in use in the language. In addition, the language contains compounds in which one or both of the constituent stems never appear as freestanding words. This creates a matrix of four possibilities in terms of boundedness in nominal compounds: 1. free-free (F-F); 2. free-bound (F-B); 3. bound-free (B-F); 4. bound-bound (B-B), illustrated in Table 6.48:

Table 6.48. Boundedness of constituent elements in Geshiza nominal compounds

Type	Example	Gloss	Stem 1	Stem 2
1	*dʑy(w)æ-tɕe*	for fur hat	*dʑy(w)æ* 'fox'	*tɕe* 'hat'
F-F	*qʰælo-dʑa*	walnut tea	*qʰælo* 'walnut'	*dʑa* 'tea'
2	*məu-rmi*	eyebrow, eyelash	*məu* 'eye'	*-rmi* 'hair'
F-B	*re-jo*	turnip field section	*re* 'turnip'	*-jo* 'field section'
3	*ʑʑæ-pʰru*	white stone, quartz	*ʑʑo-* ~ *ʑʑæ-* 'stone'	*pʰru* 'to be white'
B-F	*rmæ-sno*	brothers and sisters	*rmæ-* 'sibling'	*-sno* 'sister'
4	*ʑmær-mi*	(male) facial hair	*ʑmær-* 'mouth area'	*-rmi* 'hair'
B-B	*rmæ-sti*	brothers	*rmæ-* 'sibling'	*-sti* 'brother'

Bound nominal stems occurring only in compounding are rare in native Geshiza lexicon. In terms of frequency, the pattern free-free overwhelmingly dominates, followed by free-bound and bound-free, instances of bound-bound being most uncommon in the language. Bound stems also occur in Tibetan loanwords used as compound stems, a topic further discussed in the following section.

6.3.6. Lexical strata in nominal compounds

Compounding is not limited to the native lexicon in Geshiza, since Tibetan and Chinese loanwords also appear as component stems, the attested combination types being illustrated in Table 6.49 on the following page. Geshiza speakers lack awareness concerning the etymology of many Tibetan loanwords (see §14.3.1). In contrast, Chinese loanwords are generally perceived as foreign, and the loans participating in compounding are well-established and frequently-used in the language.

Chinese tend function as left-hand modifiers to native Geshiza stems in nominal compounds. In certain cases, they have acquired or are in the process of acquiring the status of head. This is illustrated by *rastu-tʰan* (egg-soup) 'egg soup', a compound not accepted and used by all speakers, which contains *tʰan* 'soup' originating from the Chinese *tāng* 汤 'soup'. Tibetan loanwords that as a whole are well established in Geshiza show more variation, appearing frequently both as heads and modifiers.

Table 6.49. Geshiza compounds and lexical strata

Compound stems	Example	Stem 1	Stem 2
Tibetan-Geshiza	*ʑjɔ-bjæno*	*ʑjɔ* 'yak'	*bjæno*
	'yak meat'	TL *g.yag.* 'yak'	'meat'
Geshiza-Tibetan	*ɕʰə-dʑa*	*ɕʰə*	*dʑa* 'tea'
	'milk tea'	'milk'	TL *ja* 'tea'
Chinese-Geshiza	*pʰiŋko-sʰi*	*pʰiŋko* 'apple'	*sʰi*
	'apple tree'	CL *píngguǒ* 苹果 'apple'	'tree'
Geshiza-Chinese	*rastu-tʰan*	*rastu*	*tʰan* 'soup'
	'egg soup'	'egg'	CL *tāng* 汤 'soup'

Tibetan loanwords and compoundhood

Like native Geshiza bound stems that never appear in a freestanding form (see §6.3.5), Tibetan loanwords include bound nominal stems that are only attested in compounds, shown in Table 6.50. The resulting compounds frequently resemble English 'neo-classical compounds' that include bound stems of Greek or Latin origin: e.g. microcomputer. They are nevertheless relatively rare in Geshiza. Sometimes, a Tibetan bound stem alternates with a freestanding stem of the native lexicon in compound-formation, with minimal semantic differences: both *rdæ-mkʰre* (stone-stairs, *rdæ* < Tib *rdo* 'stone') and *rgævæ-mkʰre* (stone-stairs, *rgævæ* as a native Geshiza term) mean 'stone stairs'. A comprehensive survey is needed to determine whether speakers perceive subtle stylistic differences between the two forms.

Table 6.50. Examples of Tibetan loanword bound stems appearing only in compounds

Bound Stem	Tibetan Source	Second Stem	Compound
kʰə-, -kʰə 'dog'	*khyi* 'dog'	*we* 'home'	*we-kʰə* 'dog kept at home, guard dog'
rdæ- 'stone'	*rdo* 'stone'	*mkʰre* 'stairs'	*rdæ-mkʰre* 'stone stairs'
roŋ- 'local	*rang* 'farmer'	*vo* 'alcohol'	*roŋ-vo* 'locally brewed alcohol'
tɕʰə- 'water'	*chu* 'water'	*ɣæ* 'door, gate'	*tɕʰə-ɣæ* 'water gate'

The bound constituent stems of Tibetan origin combine with Geshiza stems in compounding, both as left modifiers and right-hand heads. Combining with Geshiza stems warrants the treatment of the word-formation results as full compounds. Geshiza lexicon, however, also contains many loanwords that were compounds already in the donor Tibetan lect. Some Geshiza speakers recognise their semantic constitution from two elements whose meaning is often clear. While the compoundhood of such cases cannot be denied, they deviate from prototypical compounds. For instance, *rtæ-kʰaŋ* (horse-house) 'stable' in which both constituent elements are bound stems of Tibetan loanword origin, originates from the Tibetan

rta khang (horse-house) ‘stable’, a compound already in Tibetan. Overall, the behaviour of such cases somewhat resembles English neo-classical compounds that in addition to combining with ‘native’ English lexicon may also combine with each other: e.g. *bio-crat* and *electro-phile* (Bauer 1983: 214).

To complicate the analysis, sometimes a bound Tibetan loanword stem also combines both with a stem that had been an independent morpheme in Tibetan, but lacks such status in Geshiza. For instance, *tɕʰə-ɣæ* (water-gate) ‘water gate’ in which *ɣæ* ‘door, gate’ is a native unbound Geshiza noun, contrasts with *tɕʰə-ŋkʰær* (water-wheel) ‘water-powered prayer wheel’, in which *ŋkʰær* originates from Tibetan *'khor* ‘wheel’ and never appears unbound in Geshiza.

Against this background, criteria must be established to determine which original Tibetan compounds are compounds in Geshiza. It is proposed here that Tibetan compounds whose stems have firmly entered Geshiza lexicon remain compounds after borrowing while Tibetan compounds that are morphologically indivisible in Geshiza lack compoundhood. To illustrate the point, *rtæ-kʰaŋ* (horse-house) ‘stable’, from Tibetan *rta khang* ‘stable’ is a compound, since both constituent elements occur frequently in Geshiza and can be thus established as morphemes beyond any doubt: e.g. *rtæ-lə* (horse-zodiac.year) ‘year of the horse’; *tsʰoŋ-kʰaŋ* (trade-house) ‘shop’. In contrast, Geshiza lexicon contains a sizeable amount of borrowed Tibetan compounds that are morphologically indivisible, which consequently places them outside the scope of compoundhood in Geshiza. *tɕʰə-ŋkʰær* ‘water-powered prayer wheel’ fails to qualify for compoundhood in Geshiza, since even though *tɕʰə* while has become established as a morpheme in the language’s lexicon, *ŋkʰær* lacks such status. A part of Tibetan compounds borrowed unimorphemically into Geshiza is illustrated in Table 6.51:

Table 6.51. Tibetan compounds that have been borrowed unimorphemically into Geshiza

Tibetan	Gloss	Geshiza	Gloss
blo khog	mind-inside > insides of the mind	*wəkʰo*	heart, mind (abstract)
brag steng	cliff-above > Badi (toponym)	*brɔsti*	Badi (toponym)
glang bu chen	big young bull > elephant	*a̱loŋbutɕʰe*	elephant
lo chung	year-small > young person	*lotɕʰoŋ*	young person
ro langs	corps-risen > Tibetan-style zombie	*ruloŋ*	Tibetan-style zombie[58]

Chinese compound loanwords and compoundhood

Moving to briefly discuss Chinese loanwords and compoundhood, because most Geshiza understand Sichuanese Mandarin, they are consequently aware of the compound nature of many of the Chinese loanwords that have entered the language. Such loanwords marginally qualify

[58] The noun *ruloŋ* belongs to ‘nounoids’ (see §4.2.1) in Geshiza, thus more accurately translated as ‘being a *ro langs*, *vetāla*, Tibetan-style zombie’. It cannot be used independently, requiring the light verb *və* (see §4.3.7.1).

as compounds, even though they are far less prototypical in their compoundhood vis-à-vis compounds made up of Geshiza compound stems. Also, since they grammatically follow Chinese compounding rules, their discussion is omitted here (see Ceccagno and Basciano 2009, Li and Thompson 1981: 45-84 for compounding in Mandarin Chinese).

As previously mentioned, Chinese loanwords form compounds with native Geshiza lexical items, and the same also applies to Chinese compound loanwords: e.g. *konlu-tɕæ* '(modern) road' that consists of the Chinese loanword *konlu* 'road highway' < *gōnglù* 公路 (public-road) 'road, highway' and the Geshiza *tɕæ* 'road'.

Summary
Examining lexical strata in Geshiza compounding shows that rather than being binary, compoundhood forms a cline. Unbound native component stems form the prototypical case of a compound, all other instances exhibiting varying degrees of lower compoundhood. Chinese compounds borrowed as such into Geshiza only marginally qualify for compoundhood.

6.3.7. Noun incorporation

Noun incorporation is defined here as a morphological structure where a nominal constituent is added to the verbal root, with the resulting structure being both a verb and a single word (Aikhenvald 2007b: 11). Noun incorporation is often interpreted as a type of compounding (Haspelmath and Sims 2010 :138), an interpretation followed here. It resembles lexical compounding in the sense that both processes enrich the lexicon of a language by forming new lexemes consisting of two component stems that in a prototypical case exist independently in the language.

Noun corporation is widely attested in Gyalrongic languages (see e.g. Jacques 2011b on Tangut; Lai 2017 on Wobzi Khroskyabs). Noun incorporation nevertheless plays only a marginal, unproductive role in Geshiza grammar where only one constituent can be incorporated at a time. Geshiza noun incorporation follows the pattern [N-V]$_V$ in which the possible inverse prefix *ɤ-* of transitive verbs is removed: e.g. *a̱mo-tʰəu* (V4) 'to convey a message' < *a̱mo* 'mouth', *ɤ-tʰəu* (V3a) 'to approach'. In addition, two incorporations also include an assimilating nasal prefix *N-*: e.g. *ŋ-ɣuə-ltə* (V4) 'to hit one's head against something' < *ɣuə* 'head', *ltə* (V4) 'to hit, collide'. The prefix is homophonous with the verbalising prefix (see §6.2.2.5), a phenomenon equally attested in Japhug where denominal derivation has developed into an intermediate stage of incorporation (Jacques 2012b).

In prototypical incorporation, both compound stems must appear as independent lexemes. For this reason, *tɕæ-dʑi* (V1a) 'to be far' comprising *tɕæ* 'road' and *dʑi* (V1a) 'to be long' qualifies for high prototypicality. On the other hand, *tɕæ-ne* (V1a) 'to be close' deviates from prototypical incorporation, since †*ne* is not attested independently in Eastern Geshiza, provided that no connection exists with the verb *ne* (V2b) 'to rest, stop'. Consequently, eight instances of incorporation were identified from the source materials, shown in Table 6.52. As discussed

above, two of these additionally include an assimilating nasal prefix *N*-, making them less prototypical.

Table 6.52. Identified cases of noun incorporation in Geshiza

Type	Incorporation	Gloss	Original noun	Original verb
O	*ntsʰə-ɤɣi* (V2b)	to wash one's face	†*ntsʰə* 'n/a'	*ɤɣi* (V3b) 'to wash'
O	*ŋ-ɣuə-ltə* (V4)	to hit head against	*ɣuə* 'head'	*ltə* (V4) 'to hit, collide'
S	*n-zjar-kʰo* (V2b)	to be sad	*zjar* 'heart'	*ɤkʰo* (V1a) 'cold'
S	*tɕæ-dʑi* (V1a)	to be far	*tɕæ* 'road'	*dʑi* (V1a) 'to be long'
S	*tɕæ-ne* (V1a)	to be close	*tɕæ* 'road'	†*ne* 'n/a'
INSTR	*ą̊mo-tʰəu* (V4)	to convey message	*ą̊mo* 'mouth'	*v-tʰəu* (V3a) 'to approach'
INSTR	*mkʰə-ɲa* (V1b)	to become coloured black by smoke	*mkʰə* 'smoke'	*ɲa* (V1b) 'to be black'
INSTR	*snə-no* (V3b)	to smell INTR	*sni* 'nose'	*no* (V1b) 'to smell'

Range of incorporation

As illustrated in the table, instances of noun incorporation include intransitive subjects (S), transitive objects (P), and instruments while the incorporated noun lacks any morphology. No incorporation of transitive subjects (A) are attested in the source materials. A verb with noun incorporation can undergo further morphological processes, such as compounding, like ordinary verbs: *ntsʰə-ɤɣi-pare* (?-wash-towel) 'face towel'.

Cohesion between the stems in incorporation

All incorporations discussed above have the nominal constituent added to the verb root, which means that the incorporated noun cannot be separated from the root and all further morphological processes attach to the left of the new root: e.g. the perfective prefix *dæ-* in *snə-no* 'to smell' in *dæ-snə-no* 'smelled' (6.21). Consequently, from the viewpoint of cohesion, this constitutes a strong bond between the erstwhile nominal and verbal elements. This group follows the rather narrow definition of noun incorporation by Caballero et al. (2008): a noun counts as incorporated when occurring between parts of the inflected verbal complex.

(6.21) ***dæ-snəno*** *= ræ* *xə* *tɕʰu* *dzi = tʰə* *mɛ-ŋgə = ræ*
PFV-smell.3=LNK DEM CONJ food=TOP ASP.NEG-eat.3=LNK

wə-lxua-sʰi.
PFV.DIR-appear.3-IFR
He smelled it (a dish), didn't eat the food, and left (the restaurant). (RN: folktale)

Additionally, Geshiza also has incorporation-like instances where the bond between the constituent elements is weaker: *wʑə-mu* (V1b) 'to occur (of earthquakes)' ; *wnæ-tsəu* (V1b) 'to heat (Sun)'; *wnæ-n-tsəu* (V3b) 'to warm oneself in the Sun'. To illustrate, the verb †*tsəu* and its possibly autobenefactive derivation †*n-tsəu* are never attested independently in Geshiza. Instead, they form a weak bond with *wnæ* '(sun)-light. What makes such cases less incorporation-like is the weak bond between the constituents. In the perfective aspect of *wnæ-n-tsəu*, for instance, the perfective prefix *dæ-* attaches to the verbal root: *wnæ dæ-nts^{h}əu*. Attaching the prefix to the nominal root results in ungrammaticality: **dæ-wnæ-nts^{h}əu*. As a summary of the discussion, the two patterns of internal cohesion are illustrated in Table 6.53:

Table 6.53. Strength of bond between the noun and verb in Geshiza noun incorporation

Incorporation	Gloss	Perfective aspect	Bond type
a̱mo-t^{h}əu (V4)	to convey a message	*nɔ-mo-təu*	strong
mk^{h}ə-ɲa (V1b)	to become coloured black by smoke	*dæ-mk^{h}ə-ɲa*	strong
nts^{h}ə-rɣi (V2b)	to wash one's face	*dæ-ntsə-rɣi*	strong
n-ʒjar-k^{h}o (V2b)	to be sad	*dæ-n-ʒjar-ko*	strong
ŋ-ɣuə-ltə (V4)	to hit one's head against sth	*dæ-ŋ-ɣuə-lt^{h}ə*	strong
snə-no (V3b)	to smell TR	*dæ-snə-no*	strong
tɕæ-dʑi (V1a)	to be far	*dæ-tɕ^{h}æ-dʑi*	strong
tɕæ-ne (V1a)	to be close	*dæ-tɕ^{h}æ-ne*	strong
vdzi-ɴq^{h}i (V4)	to bully	*vdzi dæ-ɴqi*	weak
wʑə-mu (V1b)	to occur, earthquake	*wʑə dæ-mu*	weak
wnæ-n-tsəu (V3b)	to warm oneself in the Sun	*wnæ dæ-n-ts^{h}əu*	weak
wnæ-tsəu (V1b)	to heat (Sun)	*wnæ dæ-ts^{h}əu*	weak

6.4. Summary

This chapter discussed word formation in Geshiza, focusing on derivation and compounding. In derivation, nouns and verbs function as the source categories for deriving nouns, verbs, adjectives, and classifiers. While the language contains a wide range of derivative processes, most of them lack productivity. Consequently, in addition to borrowing from Chinese, compounding now serves as the dominant means of enriching the lexicon of Geshiza, especially in the case of nominal compounds that abound in the language. Attested nominal compounds were divided into subordinate, attributive, and coordinate classes. Finally, while individual cases are attested in the lexicon, noun incorporation was shown to occupy only a marginal role in Geshiza word formation.

CHAPTER SEVEN
Simple clauses

This chapter focuses on simple clauses in Geshiza. The discussion is divided into an introduction (§7.1) defining clause in Geshiza; alignment (§7.2); basic clause types and argument expression (§7.3); coding of semantic roles by case enclitics (§7.4); valency modification (§7.5); existential clauses (§7.6); similative, equative, and comparative clauses (§7.7); and word order abstracted on the basis of previous discussion (§7.8) A summary of the central findings is given at the end of the chapter (§7.9).

7.1. Introduction

Before discussing clause types in Geshiza, the issue of what constitutes a clause is addressed. For the following discussion, I define clause in Geshiza as a syntactic unit that minimally includes an obligatory predicate. The predicate may be simple, i.e. a single verb, or complex (see §4.3.7). While the core arguments of a predicate may be formally present, they are not required overtly. They are thus often absent in everyday conversation where they remain implied by the pragmatic context. Clauses branch into main (7.1) and subordinate (7.2) clauses, the latter appearing embedded in the former:

(7.1) Main clause:
ŋa=be *ɕʰæmu* *tʰəu.*
1SG=too effort make.an.effort.NPST.1SG
I will make an effort too. (RC)

(7.2) Subordinate clause:
[*<keʂan>* *rə~ræ* *dæ-vu* *ɲo*] *<sæn>*
town **buy~RED.NMLZ:ACT** **PFV-LV:do.1SG** **after** three

<tiæn> *<ko>=ke* *gæ-ʑan.*
o'clock past=DAT PFV.DIR-come.1
After doing shopping in the County Town, I came back (home). (RN: chronicle)

Following Givón (2001a: 105), simple clauses are defined here as main, declarative, affirmative, and active, serving as the reference point for grammatical description of languages. Consequently, non-declarative speech acts receive a separate treatment in chapter 10: *Questions and commands*. In turn, negation is discussed subsequently in chapter 11: *Negation*. Finally, Geshiza complex clauses are addressed in a dedicated study in chapter 12: *Clause combining*.

7.2. Alignment

Before moving to basic clause types and their argument expression properties in the following section, alignment in Geshiza is briefly inspected. Broadly defined, alignment refers to how A and P arguments align with S, e.g. S = A ≠ P (accusative alignment), A ≠ S = P (ergative alignment), S ≠ A ≠ P (tripartite alignment) (Siewierska 2013). Morphosyntactic alignment in Geshiza shows both ergative and hierarchical alignment patterns. Alignment is discussed here from the viewpoint of case marking (§7.2.1) and argument indexation (§7.2.2), followed by hierarchical alignment (§7.2.3) and inversion (§7.2.4).

7.2.1. Alignment and case marking

Case marking in Geshiza follows an ergative pattern. Figure 7.1 below shows how S and P lack overt coding, termed in this grammar the unmarked absolutive case (see §5.3.1). In contrast to this, A is marked with the ergative enclitic *=wo* (see §5.3.2). As already mentioned in §5.3.2, ergative marking is not obligatory for speech-act-participants (first and second persons), but may nevertheless occur also in this context.

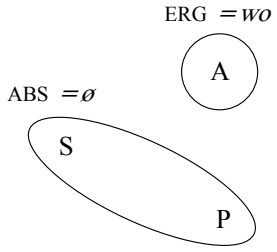


Figure 7.1. Alignment in Geshiza (case marking)

7.2.2. Alignment and argument indexation

In addition to case marking, alignment can also be analysed as a phenomenon of argument indexation, for which Geshiza uses suffixes. As Figures 7.2 and 7.3 on the following page illustrate, alignment in Geshiza argument indexation shows a split along the line of singular speech-act-participant scenarios vs. other scenarios. The system includes particularities that need to be discussed through the concepts of hierarchical alignment and inversion, briefly addressed earlier on in this grammar (§4.3.3) and also discussed in the subsequent subsections.

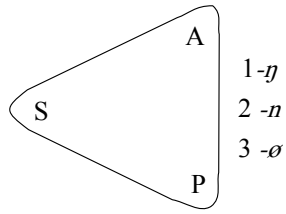


Figure 7.2. Alignment in Geshiza (argument indexation: SAP plural and others)

As figure 7.2. shows, alignment pattern in non-speech-act-participant plural scenarios is neutral. This can be illustrated with the first person plural subject (7.3). Which argument gets indexed is determined by hierarchical alignment (§7.2.3). Ambiguities that arise in this system are dealt with by the use of inversion (§7.2.4).

(7.3) 1PL, S: *ɕo-ŋ* 'We go.'
1PL, A: *ro-ŋ* 'We buy it.'
` 1PL, P: *ŋgo-ŋ* 'S/he/it eats us.'

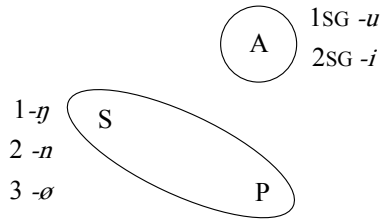


Figure 7.3. Alignment in Geshiza (argument indexation: SAP singular)

In contrast, observing Figure 7.3. shows that singular speech-act participants show ergative in alignment. For instance *ŋgə-u* > *ŋgu* (eat-1SG) 'I throw' is unambiguous regardless of the discourse context, with the only possible interpretation of indexing the first person singular A, contrasting with argument indexation in *ŋgə-ŋ* (eat-1) 'S/he/it eats me (1SG as P)' and *ɕo-ŋ* 'I go (1SG as as S)', as illustrated in (7.4):

(7.4) 1SG, A: *ŋgə-u* > *ŋgu* 'I eat.'
1PL, S: *ɕo-ŋ* 'I go.'
` 1PL, P: *ŋgo-ŋ* 'S/he/it eats me.'

To recapitulate, argument indexation suffixes in Geshiza are shown again in Table 7.1 on the following page for the convenience of the reader. As can be abstracted from the figures above, the table shows that number only plays a role in transitive A argument scenarios.

Table 7.1. Argument indexation suffixes in Geshiza

Person	1		2		3
Number	SG	PL	SG	PL	
INTR (S) / TR (P)	*-ŋ*		*-n*		*-ø* (zero)
TR (A)	*-u*		*-i*		

7.2.3. Hierarchical alignment

The relative scarcity of argument indexation morphemes in Geshiza is due to the language's use of hierarchical alignment. When discussing verb morphology. Siewierska (1998; 2013) defines hierarchical alignment as the treatment of the A and P depending on their relative ranking on the referential and/or ontological hierarchies, the higher-ranking argument receiving special treatment. In hierarchical alignment of Geshiza, speech-act-participants are indexed in preference to non-speech-act-participants, thus manifesting the underlying hierarchy SAPs> non-SAPs. This reflects a widely known typological tendency: the SAPs often occupy a privileged position vis-à-vis non-SAPs cross-linguistically (Bergqvist and Kittilä 2017: 18). Hierarchical alignment is manifested in the suffixes *-ŋ* and *-n* that index the first and second persons in both A and P functions. In examples (7.5-7.7), the personal suffix *-ŋ* indexes S (intransitive), A (transitive direct), and P (transitive inverse), respectively. For clarity of exposition, the personal suffixes are exceptionally segmented apart below:

(7.5) *məsni ŋa braŋgu dæ-ɕ^{h}o-**ŋ**.*
today 1SG TOPN PFV-go.PST-**1**
Today I went to Danba County Town. (RN)

(7.6) *'ŋa ŋgo-**ŋ**-mə' tɕ^{h}u.* […]
1SG eat-**1**-EP CONJ […]
The ogre will eat me./I will be eaten by the ogre. (RN: folktale)

(7.7) *ɲæ=ɲu mdzo dæ-ŋgo-**ŋ**.*
1=PL.ERG lunch PFV-eat-1PL
We had lunch. (MEE)

When speech-act participants and non-speech-act participants interact, only the SAPs are indexed, regardless of their role as A or P. This basic principle is identical to Sun and Tian's (2013) description of person agreement in Gexi Stau.

7.2.4. Inversion

Inversion serves to remove possible ambiguities between A and P in hierarchical alignment. Functionally, the inverse can also be seen to reduce the centrality of the agent vis-à-vis the patient (Givón 1994). Reflecting this, many instances of Geshiza inversion can naturally be translated as passives into English. Inverse marking is asymmetric in Geshiza in the sense that only inverse, and no direct constructions are marked morphologically, and a direct prefix is lacking. Inverse marking in Geshiza is grammatical and not e.g. pragmatical by virtue of being obligatory in the determined contexts discussed below.

The inverse prefix is absent in 1 > 2, 1>3, and 2>3 scenarios, termed 'direct' here (7.8). In contrast, it occurs in 3>3, 3>2, 3>1 and 2>1 interactions, manifesting an underlying hierarchy of 1>2>3. Such instances are called 'inverse' scenarios here (7.9). The inverse prefix surpasses the narrow scope of a third person agentive marker. Also, all 3>3 interactions, require inverse marking that has become generalised of a marker of these non-local scenarios (7.10). Proximative and obviative agents are consequently both marked by the inverse in all circumstances with no formal distinction between them. The terms refer to two types of third person referents with different saliency. This sets Geshiza apart from core Gyalrong languages that exhibit both direct and inverse marking in the third person.

(7.8) Direct scenario
<ʈʂʰetsə> =nɔ dæ-loŋ.
car= LOC PFV-let.1PL
We let him/her/them into the car. (MEE)

(7.9) Indirect scenario
*<ʈʂʰetsə> =nɔ dæ-**v**-loŋ.*
car=LOC PFV-**INV**-let.1PL
He/she/them let me/us into the car. (RN: chronicle)

(7.10) Compulsory inverse marking in 3>3 interactions
*<ʈʂʰetsə> =nɔ dæ-**v**-læ-sʰi.*
car=LOC PFV-**INV**-let.3
He/she/them let him/her/them into the car. (MEE)

Distribution of the inverse prefix v- is recapitulated in Table 7.2:

Table 7.2. Distribution of the inverse prefix *v-*

A \ P	1	2	3
1SG		ø-	ø-
1PL		ø-	ø-
2 SG	*v-*		ø-
2PL	*v-*		ø-
3	*v-*	*v-*	*v-*

7.3. Basic clause types and argument expression

Different basic clause types differ in their internal structure, primarily concerning different types of predicates, and secondarily based on the argument structure of a verb (see Dryer 2007: 224). Against this backdrop, basic clauses are defined here as major types of simple clauses that differ in their predicate types and argument expression. Consequently, a clause type with a distinct argument structure attested with one or few predicates, for instance, is excluded and must be considered minor, except if it appears frequently in discourse, such as copular clauses.

A fundamental division splits the basic clauses into transitive or intransitive based on their transitivity value. While the semantic and syntactic dimensions of transitivity are discussed subsequently in this chapter, for the purposes of determining the basic clause types language-internally in Geshiza, transitivity is defined formally as a characteristic manifest in argument indexation properties of a verb. The behaviour of the predicate verb vis-à-vis argument indexation divides the Geshiza verbs into four classes (see §4.3.4). Classes 1 and 2 contain all of the intransitive and classes 3 and 4 all of the transitive verbs. In sum, when following the definition of transitivity above, any clause containing a predicate from classes 1 or 2 is formally intransitive, while any clause with a predicate from classes 3 or 4 is formally transitive.

Reflecting the primary distinction between intransitive and transitive clauses, six basic clause types exist in Geshiza, illustrated in Table 7.3 on the following page: 1. intransitive (§7.3.1); 2. extended intransitive (§7.3.2); 3. semi-transitive (§7.3.3); copular (§7.3.4); 4. monotransitive (§7.3.5) and 5. ditransitive (extended transitive) (§7.3.6). The section concludes with the issue of argument expression and the light verb construction (§7.3.7).

Relevant to basic clause types is the distinction of arguments and adjuncts. Modern linguistic theory divides non-predicate elements of a clause into arguments and adjuncts, but the two are commonly distinguished on the basis of language-particular criteria (Haspelmath 2014). While an argument is compulsory, at least implicitly if omitted due to pragmatic reasons, adjuncts are optional.

Table 7.3. Summary of Geshiza basic clause types with their canonical argument structure[59]

Transitivity	Clause type	Valency	Verb class	S/A/CS	P/T/CC	R/E
Intransitive	intransitive	monovalent	1, 2	ABS/GEN		
	extended intr.	divalent	1, 2	ABS		DAT/GEN
	semi-tr.	divalent	2	ABS(/ERG)	ABS(/DAT)	
	copular	divalent	2	ABS	ABS	
Transitive	monotr.	divalent	3, 4	ERG(/ABS)[60]	ABS(/DAT)	
	ditransitive	trivalent	3, 4	ERG(/ABS)	ABS	DAT

The basic clause types are identified on the basis of their predicate type and argument structure. The former manifests through the predicate's verb class while the latter is made explicit by case marking. Basic clause types surface in many contexts. Particularly prominent from both typological and Geshiza-internal viewpoint are existential, similative, equative, and comparative clauses. While these clauses do not constitute separate basic clause types of their own right in Geshiza, they are consequently discussed in the context of this chapter.

Note on copulas and verbless clauses

Definitions of the term 'copula' vary in linguistic literature. Some scholars, e.g. Dryer (2007), see copular complements as the 'real' predicate, which results in the necessity of establishing a distinct clause type for nonverbal predicates. Choosing the most parsimonious interpretation language-internally in Geshiza, however, supports the establishment of copular clause, a subtype of intransitive clause. Consequently, verbless clauses do not belong to the repertoire of basic clause types in Geshiza.

7.3.1. Monovalent intransitive clause

Intransitive clauses that contain an intransitive predicate verb take prototypically a single argument, in contrast to transitive clauses containing a transitive predicate with two or more arguments. Formal transitivity in Geshiza is unambiguously determinable from morphological argument indexation properties (see §4.3.3, §4.3.4). Instances where this conflicts with syntactic properties of transitivity are analysed further below. A monovalent intransitive clause in Geshiza has either a stative verb (classes 1a and 2a) or a non-stative verb (classes 1b and 2b) as the predicate and includes an absolutive case S argument (7.11-7.14):

[59] The abbreviations refer herein to the following: S 'single participant of an intransitive clause'; A 'most agent-like participant of a transitive clause'; CS 'copular complement'; P 'non-agentive participant of a transitive clause'; T 'theme'; CC 'copular complement'; R 'recipient'; E 'extension argument'. O is relatively frequently used as a (near-)synonym of P om the literature.

[60] In transitive clauses, ergative marking for A is frequently, but not necessarily, omitted for speech act participants.

(7.11) *rdʑe* (V1a) ‘to be abundant:
va-dzi=t^{h}ə *rdʑe-ræ,* *æ-ŋuə-ræ.*
pig-food.ABS=TOP be.abundant-SENS Q-COP.3-SENS
(In the warm season,) there is a lot of pig food, right? (RC)

(7.12) *s^{h}i* (V1b) ‘to be finished, run out of something’:
<xuaɕ^{h}o> *æ-<tɛ>=t^{h}ə* *rdən* *dæ-s^{h}i.*
fertiliser one-CLF.sack.ABS=TOP exactly PFV-be.finished.PST
(I applied the fertiliser.) One sack was exactly enough. (RC)

(7.13) *wre* (V2a) ‘to be many’:
<luxo>=tɕe *lmæ=nts^{h}e* *neva* *wre-ræ.*
TOPN=INSTR 3=ASS.GEN relative. ABS be.many.3-SENS
They have many relatives in Luhuo. (RN: ethnographic description)

(7.14) *dza* (V2b) ‘to fall down’:
ɛ *lŋa* *zə-dza.*
INTER child.ABS PROSP-fall.ANTICAUS.3
Our child is about to fall down! (RN: folktale)

In addition to an absolutive-marked subject, genitive marking for the subject is also widely present in Geshiza. This occurs with intransitive verbs from classes 1 (7.15) and 2 (7.16) only. As discussed in §7.4.5, such subjects are Experiencers.

(7.15) *ŋi* (V1a) ‘to be acceptable, all right’:
ŋɛ=be *t^{h}ævæ=ræ* *gæ-ŋi.*
1SG.GEN=too now=LNK IPFV-be.all.right
It is going well with me now. (RN: folktale)

(7.16) *ntɕ^{h}ɔ* (V1b) ‘to feel cold’:
ŋɛ *ntɕ^{h}ɔ-ræ.*
1SG.GEN feel.cold.NPST-SENS
I feel cold. (MEE)

Question of zero-intransitive clauses
Clauses involving zero arguments semantically exist in many languages, especially in the domain of weather phenomena, but languages vary whether such clauses are also syntactically treated as lacking any arguments (Dryer 2007: 267). For instance, English uses a semantically empty dummy subject in the form of a non-referential ‘it’ in *It is raining*, while in the (Standard)

Finnish *sataa* 'It is raining', no argument is allowed. In zero intransitive clauses, verbs commonly take the default third person (singular) form if the language features person indexation (Malchukov and Ogawa 2011: 25).

Based on the collected verb lexicon, pure impersonal clauses, also known as zero-intransitive and atransitive clauses, do not exist as a major clause type in Geshiza. The only uncontroversially identified impersonal verb is *nzrə* (V1b) 'to have dew' illustrated in (7.17) where *gædəɣi* 'early morning' is through analogy from other clause types best seen as a temporal adjunct. A single verb is nevertheless not sufficient for establishing a basic clause type. In conclusion, zero-intransitive clauses are a rare minor clause type in the language. In addition to the identified verb *nzrə*, only few other verbs are expected to show no arguments at all.

(7.17) *gædəɣi* ***nzrə-ræ.*** *mæ* *dæ-qi-s^{h}i.*
early.morning **have.dew-SENS** rain PFV-rain.heavily.PST-IFR
There is dew in the early morning. It has rained a lot. (MEE)

Other weather verbs do not form syntactically impersonal clauses in Geshiza. For instance the verbs *ʑe* (V1b) 'to rain', lit. 'to come'; *bræ* (V1b) 'to stop raining'; *ŋær* (V1b) 'to not rain'; *zdo* (V1b) 'to be overcast'; *ʑu* (V1b) 'to be clear'; *bji* (V1b) 'to dawn' use an absolutive case subject *mæ* 'sky, rain' that is commonly omitted and thus inferred from the context (7.18, 7.19):

(7.18) *məsni=t^{h}ə* *nælæ* *ʑu=be* *ʑu-ræ.* *dæ-ʑu* *tɕ^{h}u.*
today=TOP daytime be.clear=too be.clear-SENS PFV-be.clear CONJ
The weather is clear today, it got clear, so… (RN: chronicle)

(7.19) *mæ* *dæ-bræ-s^{h}i.*
rain.ABS PFV-stop.raining-IFR
It has stopped raining. (MEE)

In a typological survey of meteorological expressions, Eriksen, Kittilä, and Kolehmainen (2010) describe such cases as the intransitive predicate type where the subject appears as locational, temporal, or atmospherical cross-linguistically. Of the three variables, the Geshiza subject is clearly placed under the label atmospherical. All the listed meteorological verbs are non-conjugable and appear formally identical to third person forms of other verbs that manifest argument indexation. Like other zero-forms, the zero-marked absolutive case is generally not marked in the glossing of the present work. It is nevertheless included in the glosses of this chapter the sake of clarity.

The rest of Geshiza weather verbs also appear in clauses with unequivocal argument structure. For instance, the intransitive verb *gi* (V1b) 'to abate' takes the noun *wlæ* 'wind' as the subject, while many other weather phenomena must be coded with transitive verbs predicating

clause types that are discussed in the following sections. To illustrate, *lmu* 'hailstone' cooccurs with the auxiliary *v-ra* (V3a) that has the original meaning 'to hit' (see §4.3.7.`): *lmu v-ra* 'It hails'.

7.3.2. Extended intransitive clause

Dixon (2010a: 99) uses the term extended intransitive clause to clause type where in addition to the obligatory core argument (S), an additional argument (E, extension) is also present. He further shows that the behaviour is reported from some Trans-Himalayan languages, such as Tibetan and Newari (Dixon 1994: 123). The behaviour of having an additional added argument without the resulting formation being transitive, however, is likely far more wide-spread typologically, illustrated in (7.20) from Finnish:

(7.20) *Hän* *suuttu-i* *minulle.*
3SG.NOM become.angry-PRET.3SG 1SG.ALL
S/he got angry with me.

Geshiza extended intransitive clauses include the obligatory core argument S in the absolutive and an extension E in most cases either in the dative or genitive. The predicate type in these clauses is identical to prototypical intransitives in morphological argument indexation properties. Also, the subject never appears in the ergative, unlike in typical transitive clauses. These two characteristics make the interpretation of Geshiza extended intransitive clauses as transitive impossible in terms of the criteria established at the beginning of the chapter.

Table 7.4 at the end of the subsection lists verbs predicating extended intransitive clauses with their case assignment for the extension argument, illustrated with examples below (7.21-7.24). Extended intransitive clauses are predicated by intransitive verbs from the non-stative classes 1b and 2b, the clause type thus being incompatible with stativity. As usual in Geshiza, pragmatically self-evident arguments of extended intransitive clauses are often dropped in discourse. In addition to S (7.22), this also applies to E, which means that the presence of the extension is never compulsory in the language.

(7.21) *ʤʐæn* (V1b) 'to remember, miss':

ɲi	*vle*	*dæ-ɕʰin*	*tɕʰa=tʰə*	*kʰɔ*	***ŋɛ***
2SG.ABS	corvée.labour.ABS	PFV-go.PST.2	COND=TOP	INTERJ	**1SG.GEN**

ɲi *ʤʐæn-tæn.*
2SG.ABS miss-AUX.INT
If you go to perform the corvée labour, I will miss you a lot. (RN: folktale)

(7.22) *bædzo* (V2b) 'to divorce, get separated':

ɾjəu=ke	*dæ-bædzo-s^{h}i.*
wife=DAT	PFV-divorce.3-IFR

He got divorced from his wife (RC)

(7.23) *ɾga* (V2b) 'to love, be fond of':

ŋa	***we-t^{h}o=ke=me***	*mi-rgoŋ-ræ.*
1SG.ABS	**house-build=DAT**=too	NEG-love.1-SENS

I am not fond of house building. (RC)

(7.24) *stɕær* (V2b) 'to fear':

a	*'ŋa=t^{h}ə*	***ɲi=ke***	*stɕoŋ=mde.'*
INTERJ	1SG.ABS=TOP	**2SG=DAT**	fear.NPST.1=MOD

I am afraid of you. (RN: folktale)

As the examples and Table 7.4. on the following page show, the extension argument commonly appears fixed as dative in Geshiza, as in all class 2b verbs. In addition, many non-stative verbs from the class 1b are extended intransitives, since the verbs accept two arguments, yet show variation in encoding the extension argument, both genitive and dative being in use. For instance, depending on the existential verb contained in class 1b, a possessor may be marked by either the dative (7.25) or genitive (7.26), a topic further discussed in §7.6. The inalienable existential verb *wi* (V1b) behaves idiosyncratically by occasionally also appearing with a genitive possessor.

(7.25) *wi* (V1b) 'inalienable existential verb':

e	***s^{h}i=ke***	*tældzəu*	*wi-ræ.*
DEM	**tree=DAT**	resin.ABS	EXV.3-SENS

This tree has resin. (MEE)

(7.26) *ma* (V1b) 'negative existential verb':

[…]	***rdʑælpə***	***æ-ɣæ=je***	*lŋa*	*gæ-ma=ræ*	[…]
[…]	**chieftain**	**one-CLF.house=GEN**	child.ABS	IPFV-NEG.EXV=LNK	[…]

A chieftain family had no child... (RN: folktale)

Table 7.4. Examples of verbs predicating extended intransitive clauses

Verb class	Verb	Gloss	Extension
1b	*də*	inanimate EXV	GEN: possessor
	ɖzæn	to remember, to miss	GEN: experiencer
	ma	negative inanimate EXV	GEN: dispossessor
	vɕe	to want, need	GEN: experiencer
	wi	inalienable EXV	DAT or GEN: possessor
	ʱadu	to harm	DAT: sufferer
	ʱarə	to bark	DAT: person barked at
	ʱazi	to hit a target	DAT: target
	guæ	to collapse, break apart	DAT: source
	lpʰe	to lean against (inanimate)	DAT: surface leaned against
	mdaer	to bite, sting (insects)	DAT: person stung
	ntsʰɔ	to prick (e.g. thorns)	DAT person pricked
	ŋʈʂʰɔ	to produce, eject sparks (fire)	DAT: person ejected on
	pʰæn	to be beneficial	DAT: beneficiary
	sko	to manage, can, be able	DAT: entity managed
2b	*ʱarara*	to fight	DAT: adversary
	bædzo	to divorce	DAT: person divorced from
	dʑə	to meet	DAT: person met
	ɣor	to help	DAT: recipient of help
	jə	to be called[61]	DAT: addressee
	mə-kʰe	to envy	DAT: person envied
	mpʰæn	to suffer financial loss	DAT: person gaining the benefit
	mpʰræ	to have a good relationship	DAT: object of relationship
	na	to rely on, be dependent on	DAT: thing relied on
	ŋgrə	to lean against	DAT: object of leaning
	nwə	to own money	DAT: creditor
	ɾga	to love, be fond of	DAT: object of love
	ɾgolo	to bend the waist	DAT: person honoured
	skʰəre	to shout	DAT: addressee
	stɕær	to fear	DAT: object of fear
	v-tʰæ	to beg, ask	DAT: person begged from
	tʰe	to belong, be included	DAT: group of inclusion
	tɕʰa	can, be able	DAT: entity managed
	zra	to be shy of	DAT: object of shyness

[61] See also §7.3.6 for a 'semi-ditransitive' use of *jə* (V2b) with the meaning 'to say'.

Extended intransitive clauses and prototypical transitivity

Seen in the light of prototypical transitivity, Geshiza extended intransitive clauses invariably show features of low transitivity value. Hopper and Thompson's (1980) model of prototypical transitivity involves parameters, namely PARTICIPANTS (two or more); ASPECT (telic); PUNCTUALITY (punctual); VOLITIONALITY (volitional); AFFIRMATION (affirmative); MODE (realis); AGENCY (high in potency); AFFECTEDNESS of O (O totally affected); and INDIVIDUATION OF O (O highly individuated). Building on previous research, Næss (2007: 15) argues along similar lines that a prototypical transitive clause involves a volitionally acting 'agent' participant performing a concrete, dynamic action which has a perceptible and lasting effect on a specific 'patient', the event being presented as real and concluded. Based on this, she establishes her own definition of prototypical transitivity through a Maximally Distinct Arguments Hypothesis: 'A prototypical transitive clause is one where the two participants are maximally semantically distinct in terms of their roles in the event described by the clause' (2007:30).

Examining verbs predicating extended intransitive clauses in Geshiza shows their low prototypical transitivity vis-à-vis the two models illustrated above. For instance, P in the verb *ɾga* (V2b) 'to love' is not necessarily saliently and perceptively affected by the emotive feeling of A that also fails to qualify for dynamic action (7.23). Additionally, (7.27) violates the Maximally Distinct Argument Hypothesis, since rather than involving two semantically maximally distinct participants, since the action expressed by the verb *dʑə* (V2b) 'to meet, come across' is rather mutual-like without a prototypical agent and patient.

(7.27) *dʑə* (V2b) 'to meet, come across':

o	*xe*	*ɲo=ræ*	***skəʑɔ=ke***	*gæ-dʑoŋ.*
INTERJ	DEM.GEN	after=LNK	**reincarnated.master=DAT**	PFV-meet.1

Then we met the reincarnated master. (RN: personal history)

Typological remark

Dixon (2000: 3) argues that when extended intransitive and extended transitive clause types are present in a language, they are always greatly outnumbered by plain intransitive and plain transitive clause types. With its limited range of verbs exhibiting extended intransitivity, Geshiza reflects this typological feature.

7.3.3. Semi-transitive clause

Clauses that fail to neatly fit into the categories of intransitive and transitive are widely attested in many languages of the world (Dryer 2007: 271). Such clauses showing features of both intransitive and transitive clauses are broadly termed semi-transitive here.

In Geshiza, transitivity in terms of verb class and syntactic behaviour occasionally diverge. In addition to S in the absolutive, a set of class 2b verbs accepts a second non-subject argument

generally in the absolutive, semantically resembling P. Like in monotransitive clauses (see §7.3.5), dative-marking for the object is also possible. Verbs predicating semi-transitive clauses are nevertheless formally intransitive, judged from their argument indexation properties (see §4.3.3, §4.3.4). These verbs are called semi-transitive here, examples given in Table 7.5. below.

Extended intransitive and semi-transitive clauses are interpreted as different clause types due to their distinct argument expression properties. First, the non-S argument is coded differently in both cases. Second, while extended intransitive clauses have an additional E argument, the second argument of semi-transitive clauses resembles a P argument.

Table 7.5. Examples of verbs predicating semi-transitive clauses

Example	Gloss	Example semantic objects (ABS case)
mkʰuə (V2b)	to lack, not have	*pʰiəutsə* 'money'
mɲə (V2b)	to know, be able	*bæ-skæ* 'Geshiza language'
ŋ-gogo (V2b)	to share, use together	*tɕʰæræ* 'thing'
rdʑ̩u (V2b)	to drive or ride fast (used by young)	*ʈʂʰetsə* 'car'
skær (V2b)	to use, spread open an umbrella, to tie a scarf or muffler	*ɑ̟̩du* 'umbrella'; *rqua-skær* 'scarf, muffler'; *skeʥ̩i* 'scarf, muffler'
sko (V2b)	to hold, carry, have in possession	*lævtɕoŋ* 'gun'
s-məu (V2b)	to close the eyes	*məu* 'eyes'
vtʰæ (V2b)	to get, suffer from a sickness	*lædu* 'altitude sickness'
zɣæ (V2b)	1. to open the mouth, 2. to stare	*ɑ̟̩mo* 'mouth'

All attested semi-transitive verbs score low in prototypical transitivity discussed in the previous section. Some of such verbs have a non-variable required object, such as *məu* 'eyes' for *s-məu* (V2b) 'to close the eyes'. On the other hand, some accept an object from a wider semantic pool. For instance, a multitude of acquired sicknesses known to the Geshiza cooccur with *vtʰæ* (V2b) 'to get a sickness'.

To illustrate, verb *zɣæ* (V2b) 'to stare' takes an object syntactically, despite formally behaving like an intransitive verb. In (7.28), the verb indexes the third person subject, even though in most corresponding scenarios with fully transitive verbs, the first person object higher up in animacy hierarchy is indexed, as with *stɕʰəkʰi* (V4) 'to watch' (7.29). Applying such transitive argument indexation to semi-transitive clauses is deemed ungrammatical (7.30):

(7.28)

xo	*wə-ndzə~dzoŋ*	*dzoŋ=ke*	*g-ə-vɕoŋ*	*kʰɔ.*
DEM.LOC	PFV~RED~sit.1	sit.1=SEQ	PREF-NACT-tell.NPST.1PL	INTERJ

æqɛ	***ŋa=ke***	***rə-zɣæ.***
all	**1SG=DAT**	**PFV.DIR-stare.3**

We used to sit there and tell (the stories). Everyone used to stare at me (when I told the stories) (RC; see also §7.4.2 for the optional use of the dative for animate Patients)

(7.29) *xo* *wə-ndzə~dzoŋ* *dzoŋ=ke* *g-ə-vɕoŋ* *$k^hɔ$.*
DEM.LOC PFV~RED~sit.1 sit.1=SEQ PREF-NACT-tell.NPST.1PL INTERJ

æqɛ *ŋa=ke* ***rə-stɕəkan.***
all 1SG=DAT **PFV.DIR-watch.PST.1**
Intended meaning: We used to sit there and tell (the stories). Everyone used to look at me (when I told the stories) (ACC; see 7.28)

(7.30) **xo* *wə-ndzə~dzoŋ* *dzoŋ=ke* *g-ə-vɕoŋ* *$k^hɔ$.*
DEM.LOC PFV-RED~sit.1 sit.1=SEQ PREF-NACT-tell.NPST.1PL INTERJ

æqɛ *ŋa=ke* ***rə-zɣan.***
all 1SG=DAT **PFV.DIR-stare.1**
Intended meaning: We used to sit there and tell (the stories). Everyone used to stare at me (when I told the stories) (REJ; see 7.28)

Inconsistent cases

Inherently reduplicated class 2b intransitive verbs (see §4.3.5.5), such as *ɣməmə* 'to discuss'; *ɣuəɣue* 'to quarrel, argue (verbally and/or with physical violence)'; and *nt^{h}ant^{h}a* 'to argue (verbally), allow for two absolutive case arguments and thus predicate semi-transitive clauses. Some speakers, however, prefer to mark the core argument with the ergative. For instance, (7.31) is an attested utterance from a folk story in which the subject of the inherently reduplicated verb *ntanta* 'to 'argue' receives an ergative marking that is further strengthened by the ergative enclitic *=wo* (see §5.3.12 for case stacking). A consultant different from the speaker considers such use marginally acceptable, but constructed (7.32) with absolutive marking in lieu of the ergative as the preferable encoding for the utterance. In sum, the interspeaker variation results from a mismatch between semantic and formal transitivity in a subset of Geshiza verbs, forcing speakers to choose the former or latter as the basis of argument expression.

(7.31) *xə* *tɕ^{h}u* ***xə=ɲu=wo*** *$k^hɔ$* *gæ-ntanta=ræ* *xaræ*
DEM.ABS CONJ **DEM=PL.ERG=ERG** INTERJ IPFV-argue.PST.3=LNK CONJ

e *smæŋa=t^{h}ə* *gæ-ntanta=ke=ræ...* […]
DEM girl.ABS=TOP IPFV-argue.PST.3=SEQ=LNK […]
Then, alas, they argued. They argued about that girl... (RN: folktale)

(7.32) *xə* *tɕʰu* ***xə=ɲə*** *kʰɔ* *gæ-ntanta=ræ* *xaræ*
DEM ABS CONJ **DEM=PL.ABS** INTERJ IPFV-argue.PST.3=LNK CONJ

e *smæŋa=tʰə* *gæ-ntanta=ke=ræ...* […]
DEM girl ABS=TOP IPFV-argue.PST.3=SE Q=LNK […]
Then, alas, they argued. They argued about that girl... (ACC; see 7.31)

Movement verbs

Dryer (2007: 273-274) shows that typologically, clauses with movement verbs frequently qualify for candidates of semi-transitive status. In Geshiza, movement verbs in class 2b, e.g. *ɕə* (V2b) 'to go', *ʑæ ~ ʑe* (V2b) 'to come', occasionally receive peripheral arguments, such as Location, generally marked with the absolutive (7.33). If no arguments are omitted, this results in two absolutive-marked arguments in one clause, but due to pragmatic reasons, this is rare. The locative argument is never obligatory. Movement verbs also appear with other case marking, such as the dative (7.34; see §7.4.8 for a dedicated discussion). It can thus be concluded that clauses containing movement verbs in Geshiza show characteristics typical of both semi-transitive clauses and extended intransitive clauses, the latter being an exception to the general pattern.

(7.33) Zero-marked location with *ɕə* (V2b) 'to go':
mægə ***bəʑə*** ***braŋgu*** *dæ-ɕʰə.*
yesterday **son. ABS** **TOPN.ABS** PFV-go.pst.3
Yesterday my son went to Danba County Town. (RN: report)

(7.34) Dative-marked location with *ʑæ ~ ʑe* (V2b) 'to come':
lə *næ-ʑan.* ***roŋdʑoŋ=ke*** ***næ-ʑan.***
again PFV.DIR.come.1 **TOPN=DAT** **PFV.DIR-come.1**
We (started) coming back again and came to *roŋdʑoŋ* (Ch. 自生塔). (RN: personal history)

7.3.4. Copular clause

A copular clause consists of a copular subject (CS) and a copular complement (CC). Cross-linguistically, copular clauses have been subject to differing interpretations with respect to predication. Illustrating with the English copula *be*, Dryer (2007) argues that its copular complement, rather than the copular verb itself, is the 'real' predicate, which leads copular clauses falling into the realm of non-verbal predication. In contrast, in summarising clause types, Dixon (2010b: 161) interprets the copular verb as the predicate.

Geshiza has two copulas contrasting in polarity and belonging to the intransitive verb

class 2b: *ŋuə* 'affirmative copula', *mɲa ~ mja* 'negative copula' (see §4.3.8). From a language-internal viewpoint, the present work interprets copular clauses of Geshiza with the copula as the referential predicate, which obviates the need to posit a new major clause type category with non-verbal predicates. Also, in copular clauses, both the copular subject and copular complement appear the absolutive (7.35, 7.36). This makes copular clauses similar to semi-transitive clauses from the viewpoint of argument expression. Copular clauses, however, never show ergative marking for CS. In this work, they are interpreted as a separate clause type, rather than a subtype of semi-transitive clauses.

Since both two core arguments are identically encoded with the non-marked absolutive, the fixed word order CS CP COP is established for securing an unambiguous interpretation in pragmatically non-marked Geshiza copular clauses with both arguments present (see §13.3 for topicalisation and §13.7 for right dislocation and explaining all apparent exceptions).

(7.35) *ŋuə* (V2b) 'affirmative copula':

CS	CC		COP
lŋa=ɲə	*rtsʰəu=ɲə*	*bɔtʰə*	*ŋuə-ræ.*
child=PL. ABS	crops=PL. ABS	like	COP.3-SENS

Childern are like crops (i.e. they grow up quickly). (RC)

(7.36) *mɲa* (V2b) 'negative copula':

CS	CC	COP			
'ŋa	*lŋa*	*mɲoŋ=je'*	*jə.*	*'mi-ŋɣædzoŋ=je'*	*jə.*
1SG.ABS	child.ABS	NEG.COP.3=MOD	say.3	NEG-stumble.1=MOD	say.3

'I am not a child! I will not stumble (in dark)!' (he) says. (RN: chronicle)

Functions of the copulas

As discussed above, the copulas link two noun phrases: the copular subject and its complement. Depending on whether the affirmative or negative copula is used, Geshiza copulas express identity or (in)equation (7.37, 7.38), and group (dis)membership or inclusion/exclusion (7.39, 7.40), two typologically central functions attested for copulas cross-linguistically (see Payne 1997: 114).

(7.37) Equation:

ŋa=tʰə	*ækə-stæmba*	*ŋoŋ-ræ.*
1SG.ABS=TOP	PN-PN.ABS	COP.3-SENS

I am *a khu ston pa* (name of a legendary Tibetan trickster hero). (RN: folktale; see §2.7.4 for the figure in Geshiza folklore)

(7.38) Inequation:

ŋa	*lŋa*	*mŋoŋ=je.*
1SG.ABS	child.ABS	NEG.COP.3=MOD

I am not a child! (RN: chronicle)

(7.39) Group membership/inclusion:

ŋæ=ɲə	*bəræ-væ*	*æqɛ*	*bəmbə*	*ŋoŋ.*
1=PL	TOPN-NAT. ABS	all	bon.po. ABS	COP.3

All of us from Balang Village are followers of Bön (OU)

(7.40) Group dismembership/exclusion:

t^ho	*$næmk^hæ$*	*jə-me*	*æ-lə*	*dæ-dʑi-s^hi,*
DEM.LOC	PN	say-NMLZ:P	one-CLF.INDEF. ABS	PFV-EXV.3-SENS

læma.	*mŋa.*	*læma=$t^hə$*	*mŋa-ræ=bɔ.*
lama ABS	NEG.COP.3	lama=TOP.ABS	NEG.COP.3=MOD

There was a certain person called *$næmk^hæ$,* a lama, there. No. He is not a lama. (RN: personal history)

Predicate adjectives also require the use of a copula in Geshiza (7.41, 7.42; see also §4.4.1 in the context of adjectives as a word class):

(7.41) Compulsory copular use with predicate adjectives (affirmative):

ɲi	*ryuen=$t^hə$*	*gæ-tɕɔ*	*æ-lə*	*ŋuə-ræ.*
2SG.GEN	pillow.ABS=TOP	ADJ-comfortable	one-CLF.INDEF.ABS	COP.3

Your pillow is comfortable. (MEE)

(7.42) Compulsory copular use with predicate adjectives (negative):

ɲi	*ləspə*	*bɔ*	*gɔ-jær*	*æ-lə*	*mŋa-ræ.*
2.GEN	body.ABS	so	ADJZ-good	one-CLF.INDEF .ABS	NEG.COP.3-SENS

Your body is not in a very good condition. (MEE)

Being and becoming

Both the affirmative and negative copulas code static situations. When a speaker needs to express a dynamic change of state, the intransitive verb *tje* (V2b) 'to come, become, be enough' may be used as a 'quasi-copula', as shown in (7.43, 7.44) on the following page:

(7.43) *mæmqo* *kʰɔ* *æqɛ* *kʰɔ* *<xondi>* *ɲji~ɲji*
sky.ABS INTERJ all INTERJ red RED.ADJZ~red

dæ-ŋuə-sʰi *kʰɔ~kʰɔ.*
PFV-COP.3-IFR INTERJ~RED
The whole sky became red. (ACC; see 7.44)

(7.44) *mæmqo* *kʰɔ* *æqɛ* *kʰɔ* *<xondi>* *ɲji~ɲji*
sky.ABS INTERJ all INTERJ red RED.ADJZ~red

dæ-tʰje-sʰi *kʰɔ~kʰɔ.*
PFV-become.PST.3-IFR INTERJ~RED
The whole sky became red, red. (RN: folktale; *red* first in Chinese and then in Geshiza)

7.3.5. Monotransitive clause

Geshiza monotransitive clauses include two arguments, A in the ergative and P either in the absolutive or dative (7.45-7.47), yet the arguments that are clear from the discourse contexts are commonly omitted, such as the subject of clear from the person indexation of the verb. Monotransitive clauses are predicated by verbs from classes 3 and 4.

(7.45) *ŋgə* (V4) 'to eat'[62]:
lmo *rədɔ* *ŋgə-mə-ræ.*
3.ERG beast.ABS eat.3-EP-SENS
He eats wild animals. (RN: folktale)

(7.46) *v-ra* (V3a) 'to hit':
zə-ŋui=tʰə *ɲu* *ŋa=ke* *æ-lə* *gæ-rɛ=mɔ.*
SUPL-first=TOP 2SG.ERG 1SG=DAT one-CLF.INDEF IMP-hit.2SG=MOD
You hit me once first! (RN: folktale)

(7.47) *v-kʰuæ* (V3b) 'to cut':
re-lŋa=ɲə *æ-mtɕɔ* *dæ-kuəu.*
turnip-DIM=PL one.CLF.group.ABS PFV-cut.PST.1
I cut a small lot of turnips (RC)

[62] As discussed in §4.3.4, argument indexation in scenarios involving an SAP object varies: class 3a verbs always index the A argument, class 4 verbs the P argument, while class 3b verbs are incompatible with an SAP P argument.

As discussed in §5.3.2, pragmatics influences the use of the ergative in transitive clauses. Ergative case marking is not obligatory with speech-act-participants, its appearance being attested occasionally. Omitted ergative case marking can additionally be seen with the third person in transitive clauses (7.48):

(7.48) *rdʑæ* *lmæ=ɲə=tʰə~tʰə* *mpʰri* *v-sʰæ=bɔ,* *rdʑæ.*
Chinese 3=PL.ABS=TOP~RED snake.ABS INV-kill.NPST.3=MOD Chinese.ABS

bæ *ŋæ=ɲə=tʰə* *mpʰri* *mi-sʰoŋ.*
Tibetan 1=PL.ABS=TOP snake.ABS NEG-kill.NPST.1PL
The (Han) Chinese, they kill snakes. […] We Tibetans do not kill snakes. (see §2.7.1. ą̊ɕʰə *spirits* concerning the taboo of killing snakes)

Omission in this context has no connection with prototypical transitivity, since even highly transitive verbs, such as *v-sʰæ* (V4) to kill appear with two arguments in the absolutive in monotransitive clauses. Rather, inspecting such instances, topicalisation of A with *=tʰə* (see §13.3) appears to trigger the omission of ergative marking in many instances, yet the enclitic *=tʰə* is also seen to adjoin an ergative noun phrase in rare cases of the source materials. The issue of topicalisation with *=tʰə* correlating with omission of ergative marking in transitive clauses consequently needs more attention in future research. The two arguments of a monotransitive clause are nevertheless typically encoded differently and no confusion concerning their function usually arises in discourse. The word order of pragmatically non-marked monotransitive clauses with both arguments present usually takes the conventional form APV.

7.3.6. Ditransitive (extended transitive) clause

Ditransitive verbs are defined as verbs with two additional arguments besides A: a recipient or addressee and a theme (Haspelmath 2013). The three arguments are abbreviated here as A, R, and T, respectively. The ditransitive clause type is also called extended transitive, since it can be seen to include a third, extension argument with special status in addition to the core arguments A and P (Dixon and Aikhenvald 2000: 3).

Ditransitive verbs exist in Geshiza, yet they do not form their own verb class, but appear in classes 3b and 4. As in other clause types, pragmatically self-evident arguments are often omitted altogether in everyday speech. Geshiza ditransitive clauses shares a characteristic with the extended intransitive construction: in both cases, the extension is marked by the dative.

In a prototypical Geshiza ditransitive clauses, a generally animate R is constantly marked by dative, while a generally inanimate T appears in the unmarked absolutive. Consequently, in terms of case use, Geshiza ditransitive verbs are indirective. Looking at the behaviour of the verb, however, a picture of more complicated behaviour emerges. Geshiza verbs are divided

into two groups depending on whether they treat R or T like P of prototypical monotransitive clauses. This major difference is interpreted here as the focal factor for distinguishing indirective and secundative verbs in the language. Following Haspelmath (2005 and later work, treating T like P (T = P) is called 'indirective' and treating R like P (R = P) is called 'secundative' in this grammar. This is illustrated in (8.49) and (8.50) below:

(7.49) *rjæ* (V3b) 'to ask'(indirective):

ŋa=læ	*ɲi=ke*	*tɕʰæræ*	*æ-lə*	*g-ə-rjəu.*
1SG.ABS=FOC	2SG=DAT	thing	one-CLF.INDEF.ABS	PREF-NACT-ask.1SG

I will ask you a thing. (MEE)

(7.50) *v-kʰo* (V4) 'to give' (secundative):

tɕʰu	*ŋa=wo*	*we=je*	*ŋkʰærwa*	*ɲi=ke*	*kʰuæn.*
CONJ	1SG=ERG	home=GEN	property.ABS	2SG=DAT	give.NPST.2

So, I will give you all my home property. (RN: folktale)

Semantics of ditransitives

Semantically ditransitives express transfer of an entity either in the form of possessive transfer or cognitive transfer across languages (Haspelmath (2015: 20). These two parameters apply to basic ditransitive verbs in Geshiza, defined here as non-derived verbs with ditransitive argument structure. The number of basic ditransitive verbs in Geshiza is limited. On the basis of 17 unambiguous instances listed in Table 7.6 on the following page, I estimate their number as approximately 30. Basic ditransitive verbs in the language commonly denote either concrete or abstract possessive transfer: e.g. v-*kʰo* (V4) 'to give', *v-tʰæ* (V3b) 'to give a name'. Verbs of cognitive transfer are also widely attested: e.g. *zji* (V4) 'to teach'. Additionally, historical causative derivations of transitive verbs with the prefix *s/z-* (see §6.2.3.4) often behave similarly to basic ditransitive verbs: e.g. *s-ŋi* (V4) 'to lend', *s-tʰi* (V4) 'to give to drink'. Causativisation is discussed later in a dedicated subsection of this chapter (see §7.5.1).

Table 7.6. Ditransitive verbs in Geshiza (argument of verb agreement in bold)

Type	Example	A	R	T	Gloss
Indirective	*pʰrə* (V3b)	ERG	DAT	**ABS**	to explain
	nʤʐə (V3b)	ERG	DAT	**ABS**	to distribute
	ɾjæ (V3b)	ERG	DAT	**ABS**	to ask
	ɾŋi (V3b)	ERG	DAT	**ABS**	to borrow[63]
	stʰi (V3b)	ERG	DAT	**ABS**	to spread (sickness)
	v-tʰæ (V3b)	ERG	DAT	**ABS**	to give a name
	vɕæ (V3b)	ERG	DAT	**ABS**	to speak, tell
	wɕʰo (V3b)	ERG	DAT	**ABS**	to send
	ʐjə (V3b)	ERG	DAT	**ABS**	to sell
	ʐla (V3b)	ERG	DAT	**ABS**	to recite, read aloud
Secundative	v-*kʰo* (V4)	ERG	**DAT**	ABS	to give
	v-læ (V4)	ERG	**DAT**	ABS	to give, hand[64]
	mə (V4)	ERG	**DAT**	ABS	to feed
	stɕʰə (V4)	ERG	**DAT**	ABS	to fine
	stɕʰə (V4)	ERG	**DAT**	ABS	to show
	zbrɔ (V4)	ERG	**DAT**	ABS	to return a borrowed item
	ʐji (V4)	ERG	**DAT**	ABS	to teach

Geshiza ditransitive verbs exhibit systematic and fixed distribution: all indirective verbs come from the class 3b, while all secundative verbs belong to the class 4. In the source materials, both types are rare and approximately equally attested. Using indirective indexation for a secundative verb, and vice versa, results in ungrammaticality. For example, in (7.51), the secundative *v-kʰo* (V4) 'to give' indexes the first person subject, rather than the expected recipient noun phrase *ɲi* 'you', which is deemed unacceptable. In (8.52) with the indirective *ɾjæ* (V3b) 'to ask'(indirective), the opposite happens, deemed ungrammatical by Geshiza speakers.

(7.51) **tɕʰu ŋa=wo we=je ŋkʰærwa ɲi=ke kʰo*
CONJ 1SG=ERG home=GEN property.ABS 2SG=DAT give.NPST.1SG
Intended meaning: So, I will give you all my home property. (REJ; see 7.50)

[63] In the case of *ɾŋu* (V3b) to borrow', the dative encodes the source of borrowing, rather than the recipient. See 7.4.8. for the rare use of dative for coding an abstract Source in Geshiza.

[64] The verb *v-læ* (V4) frequently appears as the predicate of a light verb construction (see §4.3.7.1). It additionally used ditransitively with the semantics 'to give, hand' with several conventional objects, e.g. *dəva* 'cigarettes', *kʰædær* 'ritual scarves' in which case the use of the standard ditransitive verb of giving *v-kʰo* (V4) is rare.

(7.52) *ŋa=læ ɲi=ke tɕʰæræ æ-lə g-ə-rjæn.
1SG.ABS=FOC 2SG=DAT thing one-CLF.INDEF.ABS PREF-NACT-ask.2
Intended meaning: I will ask you a thing. (REJ; see 7.49)

Since either R or T that is already 'on stage' is almost always omitted due to pragmatic reasons, a non-elicited basic word order for ditransitive clauses cannot be established. Elicitation indicates that both A R T V and A T R V are acceptable.

Affectee (benefactive and malefactive) clauses

In addition to prototypical ditransitive clauses discussed above, many Geshiza transitive verbs from class 3b allow the presence of a peripheral argument encoded with genitive. A non-exhaustive sample of such verbs is given in Table 7.7 below. In addition, many other class 3b verbs are syntactically compatible with an additional peripheral argument. Nevertheless, the frequency of such formulations in everyday conversation varies depending on the verb in question.

Table 7.7. Geshiza verbs with a beneficiary or maleficiary as a non-obligatory argument

Verb	A	Affectee	P	Gloss
mbe (V3b)	ERG	GEN	ABS	to carry away
m-tsʰæ (V3b)	ERG	GEN	ABS	to heat
nʑæ (V3b)	ERG	GEN	ABS	to bring
v-ræ (V3b)	ERG	GEN	ABS	to write
v-ru (V3b)	ERG	GEN	ABS	to pour (e.g. tea)
wsʰə (V3b)	ERG	GEN	ABS	to prepare (for visitors)
zɣe (V3b)	ERG	GEN	ABS	to boil, cook

In all attested cases, unlike in prototypical ditransitive clauses with a recipient, using the dative instead of the genitive is considered ungrammatical by the Geshiza (7.53, 7.54). Also, the verbs from the class 3b always index P, not the peripheral argument. Since pragmatically self-evident arguments are dropped also in this clause type, they have been reinstated inside brackets in the examples for illustrative purposes.

(7.53) *v-ru* (V3b) 'to pour (e.g. liquids into a cup)':
ŋa zə-ɕʰa wə-ndzoŋ. (e sme=wo) ŋɛ (dʑa) v-ru.
1SG.ABS SUPE-on DIR-sit.1 (DEM woman.=TOP) 1SG.GEN (tea.ABS) INV-pour.3
I will sit on the 'highest' seat. That lady will pour tea for me. (RN: folktale; 'Highest' is to be understood metaphorically here, referring more abstractly to the most prestigious seat.)

(7.54) *ŋa zə-ɕʰa wə-ndzoŋ. (e sme=wo) æŋ=ke (dʑa) v-ru.
1SG.ABS SUPE-on DIR-sit.1 (DEM woman=ERG) 1SG=DAT (tea.ABS) INV-pour.3
Intended meaning: I will sit on the 'highest' seat. That lady will pour tea for me. (REJ; see 7.53)

Rather than a recipient, the genitive marks an 'affectee' that is either a beneficiary or a maleficiary. The affectee differs from a recipient, since recipients are often obligatory arguments, especially in verbs of giving, but beneficiaries can in many occasions be omitted (Kittilä and Zúñiga 2010: 4). Pragmatically an affectee is nevertheless often implicit (Kittilä, personal communication, Jan 29 2019). The authors further define beneficiary as a non-obligatory, typically animate participant advantageously affected by an event, the opposite of which is termed maleficiary. Consequently, Geshiza has a non-basic clause type that differs from ditransitive clauses discussed above. This clause type comprises benefactives and malefactives and is termed 'affectee clause' here on the basis of the term 'affectee' introduced in (Kittilä and Zúñiga 2010: 5). The classification as non-basic is justified since the affectee clauses can always be restored into monotransitive clauses through the removal of the non-compulsory affectee argument.

The verb v-rə *'buy':*
The complex transitive verb *v-rə* (V3b) 'to buy' must be mentioned separately due to its idiosyncratic behaviour: A in the ergative, possessor with a beneficiary overtone in the genitive, P in the absolutive, and the source of purchase in the dative. In the coding of the source, it behaves like the indirective verb *rŋi* (V3b) 'to borrow'. On the other hand, the presence of a genitive-form beneficiary argument is a characteristic of affectee clauses discussed earlier. In all, *v-rə* shares features with both indirective ditransitive and affectee clauses. No non-elicited examples with all four arguments present in *v-rə* exist. (7.55), the most complete instance attested in the source materials, illustrates how most instances of the verb only include the core arguments A and P. (7.56) is a constructed example resulting from combining elements from various attested clauses through monolingual elicitation, but nevertheless neatly illustrates the atypical behaviour of *v-rə*:

(7.55) *tɕædʑi-væ* *lmæ=**ɲu*** *æqɛ* *bədzu* ***we*** ***gæ-v-rə-sʰi.***
far-NAT 3=PL.**ERG** all TOPN **house.ABS** **PFV-INV-buy.3-IFR**
All the people far away have bought a house in *bədzu* (Ch. Xinqu) district. (RC)

(7.56)

AGENT	POSS/BEN	THEME	SOURCE	
æpa=wo	*ŋɛ*	*ʈʂʰetsə=tʰə*	*rdʑæ*	*æ-ɣi=ke*
father=ERG	1.GEN	car.ABS=TOP	Chinese	one-CLF.person=DAT

gæ-v-rə-s^{h}i.
PFV-INV-buy.3-IFR
(My) father bought me a car from a Chinese. (lit. My father bought my car from a Chinese.) (ACC)

The verb jə *(V2b) 'to say':*
The intransitive verb *jə* (V2b) 'to say' semantically resembles the ditransitive verb *vɕæ* (V3b) to speak, tell', but shows idiosyncratic behaviour. First, the S argument appears either in the absolutive or ergative, the former considered more 'standard' by interviewed consultants. Second, identical with ditransitive verbs, it manifests additional R and T -like arguments with dative and absolutive, respectively. In (7.57) modified through monolingual elicitation, the T-like argument in parenthesis has been added afterwards for illustrative purposes. In sum, similar to semi-transitive verbs defined in this chapter vis-à-vis transitive verbs, the verb *jə* can be seen as a semi-ditransitive verb sharing morphosyntactic characteristics of both intransitive and ditransitive verbs. No other similar cases, however, were identified in the language.

(7.57)

AGENT				RECIPIENT
xə=nts^{h}e=je	*ɲjɔ*	*t^{h}u=wə*	[…]	*dʑælpə=ke*
DEM=ASS.GEN=GEN	servant	DEM.ERG=ERG	[…]	chieftain=DAT

THEME		
(tɕ^{h}æræ	*æ-lə)*	*dæ-jə-s^{h}ə-mə-ræ.*
(thing	one.CLF.INDEF.ABS)	PFV-say.3-IFR-EP-SENS

The chieftain's servant said a certain thing to him. (ACC)

7.3.7. Argument expression and the light verb construction

The light verb construction (see §4.3.7.1) presents problems for establishing its status among Geshiza basic clause types. Specifically, determining the syntactic status of the non-verbal element in a complex predicate is far from straightforward. While the issue has been widely studied in Indo-Aryan linguistics (see e.g. Liljegren 2010 on Palula), Gyalrongology has paid limited attention to it. In most cases, the non-verbal element cooccurring with the light verb *və* behaves syntactically similar to a direct object in Geshiza. As in (7.58), an additional argument may be introduced, which in most cases is a Recipient (see §7.4.3) requiring dative coding. Such formations where *və* behaves as a class 3 verb resemble indirective ditransitive clauses in Geshiza (see §7.3.6).

(7.58)

ŋa	*ɲi=ke*	*dæɣo*	*vu=bɔ.*
1SG	2SG=DAT	helping	LV:do.1SG=MOD

I will help you. (MEE)

An additionally introduced Affectee (see §7.4.6) with genitive coding is also possible (6.59). It is thus natural to think elements like *dzi* 'food' in *dzi və* 'to make food, cook' as the semantic and syntactic objects of the clause where A is marked with the ergative case. Geshiza transitive verbs require either an implicit or explicit direct object with ergative coding for A, which is why interpreting the non-verbal element in the aforementioned instances as lacking argument status would require ascribing atypical behaviour for a transitive verb.

(7.59) *ɲi=wo* *xo* *ŋɛ* *kʰrən* *ʤo~ʤo*
2SG=ERG DEM.LOC 1SG.GEN punishment RED.ADJZ~lot

æ-lə *dæ-vi* *tɕʰu* […]
one-CLF.INDEF PFV-LV:do.2SG CONJ […]
You punished me a lot there, so... (RN: folktale)

In fewer instances, however, the additionally introduced argument appears as the object that controls person indexation in the clause. As in (7.60), the verb now indexes the second person, showing thus class 4 indexation pattern. Since Geshiza lacks a double direct object clause type, the non-verbal element is to be interpreted as lacking argument status, objecthood being 'taken over' by the newly introduced argument. In conclusion, such instances demonstrate that the light verb *və* by itself does not determine the argument structure, since if this were the case, only one pattern would be attested. Rather, the semantic properties of the non-verbal element in complex predication decide the syntactic status of the non-verbal element. Based on the discussion above, I do not consider the light verb construction a separate basic clause type, rather than a construction with multiple possible manifestations in argument expression.

(7.60) *sʰu* *ren=na* *e=tʰə=ræ* *rjəu* *ven.*
who.ERG find.2PL=CONC DEM=TOP=LNK wife.ABS LV:do.2
I will marry whomever of you who finds (the ring). (RN: folktale)

7.4. Coding of semantic roles by case enclitics

This section discusses the coding of central semantic roles by means of case enclitics in Geshiza. Considerable variation exists among linguists in terms of defining semantic roles, also commonly known as thematic relations. The composition and size of semantic role inventories is also under debate (Levin and Rappaport Hovav 2005: 36). The same goes for the broadness of the posited categories and their boundaries, most analysts positing between 8 and 20 unique roles (Whaley 1997: 67; see Frawley 1992: 197-249 for a representative set of 12 roles). At the core of many less controversial definitions, semantic roles are seen to link participants and situations. Berk (1999) states that are roles that participants play in events and situations. Davis

(2011: 400) offers a similar definition: 'thematic roles provide one way of relating situations to their participants'. Cross-linguistically, semantic roles are encoded by case, adpositions, verb affixes, and word order (see Kittilä, Västi, and Ylikoski 2011: 8 and Luraghi and Narrog 2014: 3 for recent literature).

Geshiza has a rich case inventory comprising case enclitics (see §5.3). The discussion here focuses on the major roles of Agent, Force, and Cause (§7.4.1); Patient and Theme (§7.4.2); Recipient (§7.4.3); Possessor (7.4.4); Experiencer (§7.4.5); Affectee (§7.4.6); Instrument (§7.4.7); Location, Source, and Goal (§7.4.8); Path (§7.4.9); Time (§7.4.10); and Accompaniment (§7.4.11). Table 7.8 presents a summary of the findings. As can be seen, many cases in Geshiza are 'syncretic', viz. they code several semantic roles.

Table 7.8. Mapping of the productive case enclitics and semantic roles

Semantic roles	ERG =*wo*	ABS =*ø*	GEN =*je*	DAT =*ke*	INSTR =*tɕe*	APPR.LOC =*ŋɛtɕe*	LOC =*nɔ*	TERM =*lɔ*	COM =*pʰa*
Agent	✓	✓							
Force	✓								
Cause	✓								
Possessor	✓	(✓)	✓	✓					
Experiencer	✓	✓	✓						
Affectee			✓						
Recipient				✓					
Patient		✓		✓					
Theme		✓							
Instrument					✓				
Path					✓	✓			
Source				✓	✓	✓	✓		
Location		✓		✓	✓	✓	✓		
Goal		✓		✓	✓	✓	✓	✓	
Time		✓		✓				✓	
Accompaniment									✓

7.4.1. Agent, Force, and Cause

An agent deliberately instigates an action, being thus prototypically animate and more narrowly, predominantly human. In intransitive clauses, Agent in Geshiza is coded by the unmarked absolutive case (see §5.3.1), illustrated in (7.61, following page):

(7.61) ***ækə-stæmba*** ***lmæ*** *dæ-pje-s^{h}i* *ŋuə-ræ.*
PN-PN **3.ABS** PFV-escape.PST.3-NMLZ COP.3-SENS
A khu ston pa escaped. (RN: folktale)

Agent is coded with the ergative case enclitic in transitive clauses (*=wo,* also realised as vowel fusion; see §5.3.2 for the ergative case enclitic; §3.4.3 for vowel fusion). This is illustrated in (7.62) and (7.63). As discussed earlier in this chapter, speech-act-participants, especially the first person, do not necessarily require formal coding for agentivity (7.64).

(7.62) ***joŋdʐun=wo*** *wərja-<ts^{h}ɛ>=ɲə* *æ-nts^{h}æ* *dæ-və-s^{h}i.*
PN=ERG chicken-dish=PL.ABS one-CLF.little.bit PFV-LV:do.3-IFR
joŋdʐun made a bit of a chicken dish. (RN)

(7.63) ***æməu*** *dzi* *dæ-və-s^{h}i.*
mother.ERG food.ABS PFV- LV:do.3-IFR
(My) mom cooked. (RN)

(7.64) *e* *vdə=t^{h}ə* ***ŋa*** *vtu=ræ* *s^{h}əu.*
DEM ogre.ABS=TOP **1SG.ABS** vanquish.NPST.1SG=LNK kill.NPST.1SG
I will vanquish and kill that ogre. (RN: folktale)

The grammar of Geshiza does not distinguish between animate and inanimate causers. In addition to Agents, non-animate involuntary Force is also marked with the ergative case enclitic if it is seen to have agentive-like power to bring about an event. Since Geshiza Valley is subject to moderate wind and even occasional minor storms, especially during the wintertime, a frequently surfacing Force in everyday conversation is *wlæ* 'wind' (7.65):

(7.65) ***wlæ=wo*** *rloŋrta-bət^{h}a* *dæ-s-le-s^{h}i.*
wind=ERG prayer.flag-stick.ABS PFV-CAUS-fall.3-IFR
The wind blew the prayer flag stand down. (UA)

Furthermore, the role of Cause, defined here as abstract non-animate non-force instigator of an event, is coded by the ergative case in Geshiza. The case enclitic typically adjoins infinitives that express the Cause of something. Like force, in such cases, the infinitives appear as if having agentive-like power to bring about an event. For instance, in (7.66 following page,) where the underlying verb form is *vjə* (V2b) 'to be hungry', the speaker jokingly states that being hungry caused him to die:

(7.66) ***vju*** *dæ-soŋ.*
hunger.INF.ERG PFV.die.PST.1
I am dying of hunger. (lit. I died of hunger; cf. Chinese 我饿死了) (UA)

7.4.2. Patient and theme

A patient is typically affected by action while the related semantic role theme does not undergo change of state, yet it can be transferred to a different entity, in this role typically surfacing in ditransitive clauses (see §7.3.6). The roles of Patient (7.67) and Theme (7.68) are commonly coded with the unmarked absolutive (see §5.3.1) in Geshiza. While not being conditioned in terms of animacy, inanimate Patients nevertheless dominate in Geshiza (see Kittilä, Västi, and Ylikoski 2011 for the relationship between animacy and semantic roles).

(7.67) *da* *sme* *lmo* *e* *<tɕaɲjo>=nɔ* ***lŋa=dʑe***
INTERJ woman 3.ERG DEM prison=LOC **child.ABS**=TOP

dæ-nʑæ-s^{h}i *ŋuə-ræ.*
PFV-give.birth.3-NMLZ COP.3-SENS
The woman gave birth to a child inside that prison. (RN: folktale)

(7.68) *tɕæmu* *æpa=wo* ***<tiænxua>*** *rə-v-tæ=ræ* […]
moment.ago father=ERG **phone.call.ABS** PFV.DIR-INV-bring.PST.3=LNK […]
A moment ago, (your) father gave (me) a phone call… (RC)

Compulsory dative marking for Patients:

A minor verb class 3a (see §4.3.4.4) includes mostly 'verbs of violence', such as verbs of hitting: *v-dæ* 'to scold (possibly accompanied by hitting)'; *v-ra* 'to hit'; *rtɕ^{h}æ* 'to bite'. With class 3a verbs, the Patient must be coded with the dative (7.69) in contexts where an absolutive case object is ungrammatical (7.70). This likely occurs since the Geshiza perceive such Patients locatively, i.e. as spaces where action takes place. Evidence for this interpretation is provided by Geshiza demonstrative pronouns (see §4.5.2), unique in the language by having dedicated locative forms in addition to being compatible with case enclitics. When a class 3a verb is used with a demonstrative pronoun patient, instead of the expected dative form, e.g. *t^{h}ə=ke* (DEM=DAT), the locative form is used, as *t^{h}o* (DEM.LOC) in (7.71):

(7.69) *ɖʐæmba-næmk^{h}a=wə=ræ* *xaræ* ***rjəu=ke*** *dæ-v-dæ-s^{h}ə-mə-ræ.*
PN-PN=ERG=LNK CONJ **wife=DAT** PFV-INV-scold.3-IFR-EP-SENS
dran pa nam mkha' scolded his wife. (RN: folktale)

(7.70) **dʐæmba-næmkʰa=wə=ræ xaræ **ɹjəu** dæ-v-dæ-sʰə-mə-ræ.*
PN-PN=ERG=LNK CONJ **wife.ABS** PFV-INV-scold.3-IFR-3-EP-SENS
Intended meaning: *dran pa nam mkha'* scolded his wife. (REJ; see 7.69)

(7.71) *ɲu=tʰə **tʰo** gæ-rtɕʰe.*
2SG.ERG=TOP **DEM.LOC** IMP-bite.NPST.2SG
Bite that one! (RN: folktale; a frog instructing its dragonfly friends to bite a stick so that they can carry it to a new place flying, the frog holding the middle of the stick.)

Optional dative marking for Patients and Themes:
Patients and themes are optionally coded with the dative in Geshiza (7.72, 7.73). Verbs in such cases typically belong to class 4: e.g. *vdo* 'to see', *v-sʰæ* 'to kill'. In (7.74) and (7.75), two strikingly similar folktale excerpts, the narrator alternatively encodes the first person functioning as the theme with and without the dative:

(7.72) *ŋa dæ-v-doŋ.*
1SG.ABS PFV-INV-see.1
She/he/it/them saw me. (MEE)

(7.73) *æŋ=ke dæ-v-doŋ.*
1SG=DAT PFV-INV-see.1
She/he/it/them saw me. (MEE)

(7.74) *ʑɲæn sʰo **ŋa** dæ-v-soŋ=be lŋa=ke gæ-stɕʰəkʰen.*
INTERJ DM **1SG.ABS** PFV-INV-kill.PST.1=even child=DAT IMP-look.NPST.2PL
Alas! Even if you kill me, look after (my) child! (RN: folktale)

(7.75) *'æŋ=ke dæ-v-soŋ=be ŋɛ lŋa=ke (<sənsən>=ke)*[65]
1SG=DAT PFV-INV-kill.PST.1=even 1SG.GEN child=DAT (grandchild=DAT)

æ-ntsʰæ næ-stɕʰəkʰen' dæ-jə-sʰi ŋuə-ræ=je.
ONE.CLF.little.bit IMP-look.NPST.2PL PFV-say.3-NMLZ COP.3-SENS=MOD
Even if you kill me, please look after my child! (RN: folktale)

The phenomenon in question here is tentatively classified as differential object marking (DOM). DOM is defined as 'case marking of only a subset of objects by overt forms, often affected by the referential or discourse properties of the object' (Sinnemäki 2014: 282). While

[65] mistake by the narrator

optional dative frequently occurs with animate Patients, the conditioning for DOM is pragmatic, rather than grammatical in Geshiza. Example (7.76) illustrates that optional dative marking is not restricted to animate contexts, but occurs with inanimate Patients as well. Pragmatic factors, such as contrast and definiteness seem to correlate with the optional use of the dative for Patients, but more conversation-based source materials are needed for reaching final conclusions on the matter. In sum, among the multitudes of topics singled out for dedicated and more extensive future studies, coding of the Patient in Geshiza is likely to yield interesting results.

(7.76) *tʰævæ=tʰə* *æqɛ* *<**tiænʂə**>* ***=ke*** *=zɔ* *gæ-stɕəkan-sʰi*
now=top all **television=DAT**=only IPFV-watch.NPST.1PL-NMLZ

ŋuə-ræ *sʰo.*
COP.3-SENS DM
Now (we) all are watching television only. (RN: local history)

7.4.3. Recipient

Recipient refers to the animate endpoint of both physical and abstract transfer. The role is coded with the dative in Geshiza (7.77, 7.78). The Recipients tend are animate in the language, a typologically common trait.

(7.77) *concrete transfer:*
o ***lmæ=ɲə=ke*** *kʰoŋ* *vɕe-æ* *tɕʰu.*
INTERJ **3=PL=DAT** give.NPST.1PL AUX.must.NPST-SENS CONJ
Oh, we need to give it to them. (RC)

(7.78) *abstract transfer:*
[…] ***sami=ke*** *skæ=ɲə* *æ-ntsʰæ* *næ-zju.*
[…] **PN=DAT** language=PL.ABS one-CLF.little.bit PFV.DIR-teach.1SG
I taught Sami (the author) some words yesterday evening. (RN: chronicle)

7.4.4. Possessor

Possessor, a role of an animate entity in the possession of another entity, is sometimes included in inventories of semantic roles. In Geshiza, Possessor is coded with three primary strategies, depending on the chosen possessive verb. Before discussing such strategies, a typological background note is offered below. It should be noted that by Possessor, I refer to the semantic role present in predicate possession, i.e. not to possessor in adnominal possession (see §5.5.1).

Stassen (2013; see also 2009: 38-69) argues that at least four frequent and easily identifiable strategies for encoding predicative possession exist in languages of the world. In

addition to (semi-)transitive 'have' possessives with a subject, object, and a 'have' verb (e.g. I have a car), syntactically intransitive strategies in the form of existential sentences are also used. Oblique possessives have the possessor NP in an oblique form, e.g. locative or dative (e.g. 'To me a car exists'). In contrast, such locational interpretation is lacking in genitive possessives (e.g. 'My car exists'). Finally, in topic possessives, the possessor appears as the topic of a sentence (As for me, a car exists).

All these strategies, save topic possessives, are found in Geshiza.[66] The dedicated possessive verb *ntɕʰo* (V3b) 'to have' requires a Possessor marked with the ergative case (7.79), except with speech act participants where the marking is not obligatory (7.80). The Possessor is coded like an Agent (see §7.4.1). Using Heine's (1997: 33-34) domains of possession, this surfaces as the default possessive construction for physical, temporary, and permanent possession (7.79). Use for abstract possession is also occasionally attested (7.80).

(7.79) 'Have'-possessive with ergative-marked Possessor (concrete possession):
rdʑælpə=ɲu *ætɕʰəroro* *ntɕʰo-ræ.*
rich.person=PL.ERG everything.ABS have.NPST.3-SENS
The rich have everything. (MEE)

(7.80) 'Have'-possessive with absolutive-marked Possessor (abstract possession):
ə *sʰo* *vɕæ-ʑæ* ***ŋa*** *mi-ntɕʰo-ræ.*
HES MORE say-NMLZ:P.ABS **1SG.ABS** NEG-have.NPST.1SG-SENS
I have nothing else to say. (RC)

In addition, the scope of Geshiza existential verbs also overlaps with the domain of possession (see §7.6 for a dedicated section). When the existential verbs *də* (see §7.6.1) and *ma* (see §7.6.2) are used for possession, the Possessor appears in the genitive case (*=je*, also realised as vowel fusion; see §5.3.3 for the genitive case enclitic; §3.4.3 for vowel fusion), illustrated in (7.81). This coding in such resembles that of an Experiencer (see §7.4.5).

(7.81) Oblique possessive with genitive-marked possessor:
[…] ***ŋæ=ɲi*** *æru* *qa* *skilo* *ʑə*
[…] **1=PL.GEN** distal.mountainside.LOC mountain TOPN field.ABS

[66] Candidates for topic possession, such as *wʑə=tʰə qa wi-ræ* (bamboo=TOP mountain.ABS EXV-SENS) 'Mountains have bamboo (growing on them)', lit. As for bamboo, it is on mountains,' are due to their meaning interpreted here as existential, rather than possessive clauses. As mentioned in the text, the domains of possession and existence nevertheless overlap.

dæ-də=ræ. […]
PFV-EXV=LNK […]
We had a field in *skilo* up in the mountains. (RN)

Finally, the inalienable existential verb *wi* (see §7.6.3) has a Possessor in the dative case (*=ke*; see §5.3.4), as shown in (7.82). In such cases, the possessive relationship is generally inalienable (e.g. body parts). The Possessor is coded identically to dative-marked Location (see §7.4.8 also discussing other possible codings for Location, Source, and Path in Geshiza).

(7.82) Oblique possessive with dative-marked possessor:
ɾgo=ræ ***ɾji=ke*** *ndzə* *wi-ræ.*
cow=LNK **horse=DAT** colour.spot.ABS EXV-SENS
Cows and horses have colour spots on their faces. (MEE)

7.4.5. Experiencer

The core roles of Agents and Patients are relatively well-defined in the literature, while the properties of an Experiencer remain more elusive (Dahl 2014: 186). Experiencer receives, experiences, or undergoes the effects of an action (Fillmore 1969: 77). In Geshiza, an Experiencer is generally coded by the genitive, absolutive, and ergative cases.

Starting with the dominating pattern, the genitive case typically introduces an animate, typically human Experiencer with low agency or volition. A group of non-stative intransitive verbs from classes 1b denoting non-intentional and non-controlled action, such as *ạ̊di* 'to be mistaken'; *tsu^{h}pa dza* 'to be angry'; and *vsi* 'to happen, occur' are compatible with an optional Experiencer subject (7.83-7.85). The use of dative in such contexts is ungrammatical (7.86; see also §7.4.6 for the Affectee):

(7.83) ***ŋɛ*** *gɔ-di-s^{h}i.*
1SG.GEN IPFV-be.mistaken-IFR
I am mistaken. (UA)

(7.84) ***ạ̊sælpən=je*** *ts^{h}upa* *dæ-dza.*
steward-in-chief=GEN anger.ABS PFV.get.angry
The steward-in-chief got angry. (RN: folktale)

(7.85) ***ŋæ=je=be*** *bɔt^{h}ə* *dæ-vs^{h}i=ræ* […]
1SG=GEN=too like.that PFV-happen.PST=LNK […]
It has happened like that for me as well. (RN: folktale)

(7.86) ***æŋ=ke=be*** *bɔtʰə* *dæ-vsʰi=ræ* […]
1SG=DAT=too like.that PFV-happen.PST=LNK […]
Intended meaning: It has happened like that for me as well. (REJ; see 7.85)

Sensor can be seen as an Experiencer subtype. Sensor in 'opportunistic' perception verbs (see §11.2.2 for the label 'opportunistic' and for idiosyncratic behaviour of the two verbs in the context of negation) *vdo* (V4) 'to see' and *ntʰje* (V3b) 'to 'hear' is coded identically with an Agent (7.87, 7.88), namely with the ergative case. Genitive coding used for Experiencer is deemed ungrammatical in this context (7.89).

(7.87) *lməu* *æ-ntʰje-ræ.*
3.ERG Q-hear.NPST.2SG-SENS
Does he (Sami) hear (i.e. understand) what I say? (RC)

(7.88) ***ɲu*** *mɛ-vde-sʰi.*
2SG.ERG ASP.NEG-see.2SG-IFR
You didn't see it. (MEE)

(7.89) ****ɲi=je*** *mɛ-vde-sʰi.*
2SG.GEN=GEN ASP.NEG-see.2SG-IFR
Intended meaning: You didn't see it. (REJ; see 7.88)

Typological remark
In a survey of Himalayan languages, Bickel (2004) identifies two dominant patterns: experiencer-as-goal and experiencer-as-possessor ('psychollocation'). While the former coded with dative is common in Indo-Aryan languages of the region and has been borrowed into some adjacent Trans-Himalayan languages to a limited extent, Kiranti languages universally feature an experiencer-as-possessor constructions (see e.g. Gao 2015: 304-305 for Mu(n)ya). It can be hypothesised that the historical origin of Experiencer's coding with the genitive case in Geshiza reflects the experiencer-as-possessor pattern, despite the fact that not all genitive marked experiencers are easily seen as possessives in synchronic terms.

7.4.6. Affectee

Affectee is used here as the umbrella term for mostly animate, typically human beneficiaries and maleficiaries, namely entities either advantageously or disadvantageously affected by an event while not being its obligatory participants. In languages with case systems, the dative is probably the most common case for encoding beneficiaries cross-linguistically; the same device also marks experiencers in many languages (Kittilä and Zúñiga 2010: 7, 21-22). In Geshiza, the Affectee is nevertheless coded with the genitive (7.90-7.93), identical to the behaviour of

Experiencers discussed in §7.4.5. Unlike for the role of a Recipient (see §7.4.3), the dative is ungrammatical in this context (7.93). Coding a beneficiary with the same strategy used for possession is attested in other Gyalrongic languages, e.g. Zbu (core Gyalrong; Gong 2018: 103) and more broadly in other languages of the proposed Qiangic branch, e.g. Mu(n)ya (Gao 2015: 158-159).

(7.90) Beneficiary:

dærdʑe=je	*m*	*<tʰetsə>*	*ætɕʰə*	*jə*	*<lufu>=dʑe*
PN=GEN	HES	car.ABS	what.ABS	say.3	PN.ABS=TOP

æ-rgəu *roŋ.*
one-CLF.general.ABS buy.1PL
We will buy for *dærdʑe*, what is it called, a Ruf (name of a car manufacturer). (RC)

(7.91) Beneficiary:

lmo	*wo*	*æ-lə*	*dæ-v-sæ*	*zda.*
3.ERG	bear	one-CLF.INDEF.ABS	PFV-INV-kill.PST.3	AUX.EXP.PERF

dæ-v-sæ	*tɕʰa=ræ*	*næ-v-tæ-ræ*	*bəra*
PFV-INV-kill.PST.3	when=LNK	PFV.DIR-INV-bring.PST.3=LNK	TOPN

stɕəpa=je *dæ-v-qʰlə-sʰi* *ŋuə*
villagers=GEN PFV-INV-divide.PST.3-NMLZ COP.3
He has killed a bear. When killing the bear, he brought it down (to Balang) and divided (the meat) for Balang villagers. (RN: local history)

(7.92) Maleficiary:

tʰævæ	*ŋa*	***xi=je=dʑe***	*kʰrən*	*æ-lə*
now	1SG.ABS	**DEM.GEN=GEN**=TOP	punishment	one-CLF.INDEF.ABS

dæ-di-vu.
PFV-IRR.NEG-LV:do.1SG
(Things will not be all right if) I don't punish him (*a khu ston pa*) now. (RN: folktale)

(7.93) **tʰævæ* *ŋa* ***xi=ke=dʑe*** *kʰrən* *æ-lə*
now 1SG.ABS **DEM=DAT**=TOP punishment one-CLF.INDEF.ABS

dæ-di-vu.
PFV-IRR.NEG-LV:do.1SG
Intended meaning: (Things will not be all right if) I don't punish him (*a khu ston pa*) now. (REJ; see 7.92)

7.4.7. Instrument

Instrument refers to an inanimate medium lacking volition of its own and used by an Agent in carrying out an action. Typologically, many ergative languages treat agents and instruments identically (Palancar 2009: 567). For instance, many Gyalrongic languages code the roles of Agent and Instrument with an ergative case marker (see Jacques 2016b for Japhug; Lai 2017 for Wobzi Khroskyabs). In Geshiza that diverges from this tendency, an inanimate Instrument occurs in a dedicated instrumental case expressed through the enclitic *=tɕe* (see §5.3.5), formally and functionally distinct from the ergative case enclitic (7.94, 7.95). In rare cases, however, the ergative is used to 'reinforce' the instrumental through case stacking, the layout always being NP=ERG=INSTR (see §5.3.12 for examples of case stacking).

(7.94) ***ɣəu=tɕe*** *rji=je* *kæpəla=ke* *æ-nt^{h}sɔ*
needle=INSTR horse=GEN forehead=DAT one-CLF.hit:needle

gæ-v-ra=ræ *rji* *lmæ* *lɔ* *dæ-ŋkær-s^{h}ə-mə-ræ.*
PFV-INV-hit.3=LNK horse 3SG back PFV-return.PFV.3-IFR-EP-SENS
He (*a khu ston pa*) struck the forehead of the horse with a needle and the horse turned back again. (RN: folktale)

(7.95) *o* ***<ʈʂuæn>=tɕe=be*** *dæ-toŋ.* ***rgævæ=tɕe=be***
INTERJ **brick=INSTR**=too PFV-build.PST.1PL **stone=INSTR**=too

dæ-toŋ. *oja* *jəlæ* *wnæ-slə* *bələ* *dɔ-toŋ.*
PFV-build.PST.1PL INTERJ about two-CLF.month about PFV-stay.PST.1
We built both using bricks and stone. (The building process) took us about two months. (RN: personal history)

7.4.8. Location, Source, and Goal

Location refers to a place where action or an event takes place, source to the origin of movement, and a goal its endpoint. Geshiza shows similarities in coding location, source, and goal that often receive identical treatment. Except in the exceptional case of Source, the three semantic roles commonly 1. bear no coding or are either coded by 2. the locative case, 3 the dative case, or 4. the instrumental case. Before generalising some principles, examples for each of the three patterns are given below. Also, it should be noted that postpositions (see §4.8) can also be used

for Location and Goal, e.g. *pæntən tɕʰa* (chair on) ‘on the chair’, the interpretation of which depends on the context of use: e.g. ‘Sit on the chair!’ (Goal) vs. ‘There is something on the chair.’ (Location).

1. no coding:

No case coding generally appears for Location and Goal. This may be considered the default strategy for these two roles (7.96, 7.97). In contrast, Source cannot be left uncoded in Geshiza, a feature also attested cross-linguistically. Geshiza lacks a dedicated Source verb ‘to come or arrive from’, but the language has dedicated Goal verbs, e.g. *v-tʰæ* (V3b) ‘to reach a place’ that code the semantic role Goal in lieu of case marking (7.97). Any attempt to use a locomotive verb without overt coding for Source receives an unintended Goal interpretation in Geshiza, as shown in (7.98):

(7.96) Location:

braŋgu	*we*	*æ-rgəu*	*roŋ.*	*<* ***ʈʂʰəndu*** *>*	*we*
TOPN.ABS	house	one-CLF.general.ABS	buy.1PL	**TOPN .ABS**	house

æ-rgəu	*roŋ.*
one-CLF.general.ABS	buy.1PL

We will buy a house in Danba County Town. We will buy a house in Chengdu. (RC)
(see §2.5.3 concerning migration from Geshiza villages into regional centres)

(7.97) Goal:

[…]	*<sə-wu>*	*<tiæn> =ke*	***we***	*gæ-toŋ-sʰi.*
[…]	ten-five	o’clock=DAT	**home.ABS**	PFV.DIR-come.PST.1PL-IFR

Then we reached home at three o’clock. (RN: procedure)

(7.98) Source (cannot be coded without overt marking):

xe	*ɲo*	*<* ***keʂan*** *>*	*wə-ʑan.*
DEM.GEN	after	**town.ABS**	PFV.DIR-come.1

Intended meaning: We came from the town.
Resulting meaning: Then we came to the town (RN: procedure)

2. Coded by the locative:

The locative case (*= nɔ*; see §5.3.7) identically codes Location, Source, and Goal (7.99-7.101). This strategy also appears frequently in the source materials. Certain Geshiza verbs require the coding of locative adjuncts with the locative. For instance, *ŋkʰuə* (V4) ‘to put’; *v-ru* (V3b) to pour’; and *ʑua* (V4) ‘to throw’ code the Goal with the locative while in the case of *bəu* (V2b)

'to descend, get out (e.g. from car)' and *v-tʰæpʰæ* (V4) 'to take out', the source is coded. The overt coding offers a tool for differentiating between an object and a locative adjunct. For instance, in (7.100), lack of locative marking for *rdi* 'kettle' would imply that the speaker took both the kettle and noodles out from somewhere unspecified, not the noodles out from the kettle.

(7.99) Location:

stæ=wo	***<ʂetʂʰan>=nɔ***	*<ʈsunpe>*	*van*	*dæ-vɕʰe.*
all=ERG	**public.square=LOC**	preparations. ABS	LV:do.1PL	PFV-AUX.need.PST

All of us had to do the preparations at the community square.

(7.100) Source:

mele	*wə-tʰæpʰoŋ.*	***rdi=nɔ***	*wə-tʰæpʰoŋ=gæ,*
noodle.ABS	DIR-take.out.NPST.1PL	**kettle=LOC**	DIR-take.out.NPST.1PL=MOD

æ-ŋuə-ræ.
Q-COP.3-SENS

We take the noodles out. We take the noodles out from the kettle (when they are ready), right? (RC: procedure)

(7.101) Goal:

xə	*lmæ*	***mtsʰo=nɔ***	*næ-ʑua-sʰi*	*ŋuə-ræ.*
DEM.ABS	3SG.ABS	**lake=LOC**	PFV.DIR-throw.3-NMLZ	COP.3-SENS

They threw her into the lake. (RN: folktale)

3. Coded by the dative:

The dative is also used for Location, Source, and Goal in Geshiza (7.102-7.104). Example verbs coding the source with the dative are listed in Table 7.9 on the following page. Of these, dative coding is optional for the movement verbs. Idiosyncratic behaviour for coding the Source is also attested in Wobzi Khroskyabs, albeit with a different set of verbs (Lai 2017: 187).

(7.102) Location:

xo	***rejuɕəmæ=ke=ræ***	*a*	*roŋdʑoŋ*	*æ-lə*
DEM.LOC	**front.teeth=DAT**=LNK	letter.a	self.arisen	one-CLF.INDEF.ABS

dæ-wi-sʰi *ŋuə-ræ.*
PFV-EXV-NMLZ COP.3-SENS

There, in (her) front teeth, (of Princess Wencheng), there was a naturally formed Tibetan letter *a*. (RN: folktale; see §2.7.1. *Religion and physical space* for the cultural concept of self-arisen images)

(7.103) Source:

ɑ̊næm=ke	*æ-mtɔ*	*dæ-guæ-s^{h}i.*
sky=DAT	one-CLF.cut.ABS	PFV-break.apart.ANTICAUS-IFR

A piece of the sky broke apart. (RN: folktale; sky is conceptualised as fabric here)

(7.104) Goal:

<ʂə-ar>	*<tiæn>*	*skæra*	***mærtə=ke***	*rə-toŋ.*
ten-two	o'clock	about	**TOPN=DAT**	PFV.DIR-reach.PST.1PL

We reached *dmu rdo* holy mountain at around twelve o'clock. (RN: personal history; see 2.7.1. *Mountain deity cult* and *Appendix III: List of toponyms and religious loci* concerning *dmu rdo*)

Table 7.9. Verbs with dative coding for Location, Source, and Goal

Semantic role coded by DAT	Verb	Gloss
Location	*wi* (V1b)	to exist (somewhere)
	ɑ̊-ræ (V1b)	to appear (e.g. rainbows)
Source	*guæ* (V1b)	to break apart (from something)
	v-rə (V3b)	to buy (from someone)
	rjæ (V3b)	to ask (from someone)
	rŋi (V3b)	to borrow (from someone)
	n-t^{h}æp^{h}æ (V3b)	to take out (from something)
Goal	*ɕə* (V2b)	to go (somewhere)
	tje (V2b)	to come (somewhere)
	v-t^{h}a (V3b)	to attach (into something)
	v-t^{h}æ (V3b)	to reach (somewhere)
	wzo (V4)	to make sit (somewhere)
	ʑæ ~ ʑe (V2b)	to come (somewhere)

4. Coded by the instrumental:

Finally, the instrumental also appears for coding Location, Source, and Goal, making no distinction between the roles (7.205-7.107):

(7.105) Location:

< luxo> =tɕe	*lmæ=nts^{h}e*	*neva*	*wre-ræ.*
TOPN=INSTR	3=ASS.GEN	relative.ABS	many.3-SENS

They have many relatives in Luhuo County. (RN)

(7.106) Source:

mæso	***qælæɣuə=tɕe***	*rə-lxua=ræ*	*xaræ*	*bɔ*	*dæ-bjola*
TOPN	**TOPN=INSTR**	PFV-appear.3=LNK	CONJ	thus	PFV-fly.3

rə-ʑe-s^{h}i	*ŋuə.*
PFV.DIR-come.3-NMLZ	COP3.

He (the flying man) appeared from *qælæɣuə* of *mæso* (alternatively: *mæso, qælæɣuə*) and flew up (to the southern side of our valley) (RN: local history)

(7.107) Goal:

lot^{h}o=tɕe	*ɕoŋ.*
where=INSTR	go.NPST.1

Where shall we go? (RC)

Use of the instrumental for Location, Source, and Goal is not only conditioned by motion verbs. Even though a motion verb is frequently present, word (sub)class of the locative adjunct influences the coding. In other words, the instrumental commonly codes Location, Source, and Goal in two major contexts: pro-forms and toponyms, demonstrated in Table 7.10 below:

Table 7.10. Word (sub)classes with instrumental coding for Location, Source, and Goal

Lexical field	Geshiza	Glossing
Pro-forms	*xo*	DEM.LOC (see §4.5.2)
	t^{h}o	DEM.LOC (see §4.5.2)
	lot^{h}o	where
Toponyms	*luxo*	Luhuo County
	bɔvə qlo	Bawang Valley
	jænlup^{h}in	Yangliuping

Typological-comparative remark

Even though having formally identical coding for a locative and instrumental may appear counterintuitive, the phenomenon is also attested in other languages, e.g. Finnish and Japanese (see Iwasaki 2013: 118), illustrated in (7.108) and (7.109). From a typological viewpoint, instrumental markers are often polysemous and may among others also cover locative, ablative, and route functions (Narrog 2009: 599-600). All these (see §7.4.9 for Path) can be marked by the highly 'syncretic' instrumental enclitic in Geshiza.

(7.108) Instrumental *=de* in Japanese:
大阪から新幹線で東京に戻った。

ōsaka=kara	*sinkansen=**de***	*tōkyō=ni*	*modotta.*
TOPN=ABL	bullet.train=**INSTR**	TOPN=DAT	return.PST

I returned from Osaka to Tokyo by Shinkansen (i.e. Japanese bullet train) (constructed)

(7.109) Locative *=de* in Japanese:
お昼は食堂で定食を食べた。

ohiru=wa	*syokudō=**de***	*teisyoku=wo*	*tabeta.*
lunch=TOP	cafeteria=**LOC**	set.meal=OBJ	eat.PST

I ate a set meal at the cafeteria for lunch. (constructed)

5. Goal coded by the terminative:

To emphasise the endpoint, Goal is coded with the dedicated terminative case (*=lɔ*, see §5.3.8), illustrated in (7.110). As its semantics indicate, the terminative only introduces an endpoint, being thus incompatible for coding Location or Source.

(7.110)

'dən	*ɕoŋ.*	*mts^{h}o-wa=lɔ*	*ɕoŋ=mɔ'*	*jə-ræ.*
TOPN	go.NPST.1	lake-APUD=TERM	go.NPST.1=MOD	say.3-SENS

'Let's go to Dangling. Let's go all the way to the lakeside!' he says. (RC)

Summary and general patterns

Of all major semantic roles, the coding of Location, and Source, and Goal will be a fruitful area of further investigation requiring more extensive source materials. At this stage, the following generalisations are offered. First, coding of Location and Goal with an overt marker is generally optional in Geshiza, only Source requiring an overt formal marking in all instances. This partly results from a highly developed system of orientational prefixes (see §8.2) in Geshiza verbs that indicate both abstract and concrete movement, there thus being less need for additional coding by case markers (cf. Shirai 2018b: 408 on nDrapa, a related Qiangic language). Second, no general one-to one mapping exists between the semantic roles and their formal coding, many cases being decided individually based on the idiosyncratic requirements of a verb, as shown in the case of *v-rə* (V3b) 'to buy', for instance. The locative and instrumental cases show Location, Source, and Goal indifference. In other words, the cases are used to code all three semantic roles. While source-goal indifference is reportedly rare in the old world (Wälchli and Zúñiga 2006), it exists in Trans-Himalayan languages (see Matisoff 1973: 162 for Lahu).

The type of the encoded referent affects case marking. For instance, in non-elicited speech, the instrumental appears with some frequency only with toponyms and pro-forms, having no distinction for Source, Location, and Goal. Toponyms are known for their idiosyncratic behaviour in terms of spatial case selection (Creissels and Mounole 2011: 158). Furthermore,

the source materials only include instances where a movement verb has only one single explicit local role, double codings like Source-Goal in 'He went from Balang Village to Danba County Town' being absent. Wälchli and Zúñiga (2006: 289-290) expect such behaviour from languages with source-goal indifference. Finally, additional information concerning a locational semantic role may be given with the use of a postposition (see §4.8).

7.4.9. Path

Geshiza shows many similarities in coding the spatial roles of Path, Location, Source, and Goal. A path refers to an entity traversed in locomotion and is discussed separately here due to limited allowed coding options, unlike in the other spatial roles. The path is coded with the instrumental and approximative locative (*=ŋɛtɕe*; see §5.3.8) cases in Geshiza, illustrated in (7.111) and (7.112), respectively:

(7.111) *a* ***lotʰo=tɕe*** *dæ-ɕʰə* *sʰasʰa* *ma-ræ.* ·
HES **where=INSTR** PFV-go.PST.3 sense.ABS NEG.EXV-SENS
I have no idea how (lit. through where) (the cow) went there. (RC)

(7.112) ***mbəzə-tsʰætɕʰə=ŋɛtɕe*** *rə-ve=ke* *vsəu=mde,*
gun.powder-hot.spring=APPR.LOC DIR-go.SUPPL.3=DAT seem.NPST.3=MOD

mtsʰo-wa=be.
lake-APUD=too
It seems that the lakeside too is reached through the 'Gunpowder Hot Spring'. (RC)

The use of the approximative locative for Path is never compulsory. For instance, for (7.112) where the speaker tells his interlocutor that Dangling lake high up in the mountains is reached by going via the 'Gunpowder Hot Spring', a name given for a hot spring at a lower altitude in Dangling due to its smell, both the instrumental and approximative locative cases are allowed (7.113). Rather than a point-like coordinate, the approximative locative encodes an approximate location via which locomotion takes place. Its use in the source materials is mostly restricted to toponyms, the shorter instrumental case being selected in most other cases.

(7.113) ***mbəzə-tsʰætɕʰə=tɕe*** *rə-ve=ke* *vsəu=mde,*
gun.powder-hot.spring=INSTR DIR-go.SUPPL.3=DAT seem.NPST.3=MOD

mtsʰo-wa=be.
lake-APUD=too
It seems that the lakeside too is reached through the 'Gunpowder Hot Spring'. (ACC; see 7.112)

7.4.10. Time

The semantic role of time indicates when action or an event took place. As the default strategy, Time is left uncoded in Geshiza, appearing thus unmarked and identical to the absolutive case (see §5.3.1), as in examples (7.114, 7115). These cases concern 'relative time', such as *bəsni* 'today'; *bəvi* 'this year'; *t^{h}ævæ* 'now'. Many of the instances are deictic and their temporal meaning thus depends on the time of utterance.

(7.114) ***ɳdʑəgə*** *rgeva* *gæ-ndzu-s^{h}i* *ŋuə-ræ.*
day.before.yesterday.ABS dge.ba.ABS IPFV-gather-NMLZ COP.3-SENS
The day before yesterday, the merit-making funeral was organised. (RN; see §2.4.4 for *dge ba* and Geshiza funeral practices.)

(7.115) *ʐloŋ-lə* *ŋuə-ræ* *tɕ^{h}u* ***bəvi*** *wtɕ^{h}əu-ko*
Ox-year.ABS COP.3-SENS CONJ **this.year.ABS** six-CLF.year

tje-ræ .
become.NPST.3-SENS
He is an Ox, so he will turn six this year. (RN: introduction of a person; §see 2.4.1 for the Geshiza version of the Tibetan zodiac used for identifying peoples' birth years.)

The dative is also used for coding Time in Geshiza. This usually happens in the contexts of expressions of 'absolute time' expressed in Geshiza by means of non-deictic temporal expressions, such as names for months (7.116) and days of the week (7.117). Nevertheless, even such expressions to an extent rely on the time or utterance and reception.

(7.116) *ʑe=t^{h}ə~t^{h}ə* ***<ʂə-ji-jyefen>=ke*** *ʑe* *æ-rts^{h}əu*
wheat=TOP~RED **ten-one-month=DAT** wheat one-CLF.harvest

g-ə-ʑoŋ.
PREF-NACT-plant.1PZ
As for wheat, we plant it in November. (RN: procedure)

(7.117) *<keʂan>* *rə~ræ* *dæ-vu* *ɲo* ***<sæn>*** ***<tiæn>***
town buy~RED.NMLZ:ACT PFV-LV:do.1 after **three** **o'clock**

<ko>=ke *gæ-ʑan.*
past=DAT PFV.DIR-come.1
After doing the shopping at the (County) Town, I came back after three o'clock. (RN: chronicle)

As in the two examples above, expressions of absolute time are often borrowed from Chinese. Native expressions of 'absolute' time, are also compatible with dative encoding, such as native Geshiza numerals used for the days of lunisolar months (7.118):

(7.118) ***ŋæpɛ-pʰru*** ***yæ-ŋuæ=ke=tʰə~tʰə*** *ʑasa*
fifth-lunar.month.GEN-be.white **ten-five=DAT**=TOP~RED *ʑasa*.ABS

ŋuə-ræ.
COP.3-SENS
On the fifteenth day of the white period of the fifth lunar month, *ʑasa* Picnic Festival is organised. (RN; see §2.4.1 for more details concerning the festival and the Geshiza calendar.)

Finally, many expressions of time conventionally occur with historical locative cases that do not qualify for fully productive case markers (7.119). Lists such expressions with their conventional suffixation is given in (5.3.11).

(7.119) *læsær* *ɲo* ***ʂəmba-ya=ræ*** *bəra-væ=je*
New.Year.ABS after **third.lunar.month-LOC**=LNK TOPN-NAT=GEN

ʑikʰro=tʰə *kovivi* *g-ə-və.*
ʑikʰro.festival.ABS=TOP every.year.ABS PREF-NACT-LV:do.3
After the Tibetan New Year, *ʑikʰro* Scripture Recital of Balang villagers is celebrated every year (RN; see §2.4.1 concerning the festival and the Geshiza calendar.)

Summary

Table 7.11. Coding of Time in Geshiza

Case use	Lexical field	Geshiza	Gloss
Zero coding	Years	*ʑəvʑa*	(in the) last year
		bəvi	(in) this year
		sʰævi	(in) the next year
	Days	*bəsni*	today
		mægə	yesterday
		qʰæsʰi	tomorrow
	Divisions of day	*gædə*	(in the) morning
		mdzo-ɲo	(in the) afternoon
		gəɕʰo	(in the) evening
Dative coding	Modern months	*lu jyefɐn = ke*	in June
		sæn jyefɐn = ke	in March
		ʂəji jyefɐn = ke	in November
	Days of the	*ar-ʂə-lu-xəu = ke*	on the 26th
	Gregorian calendar	*ar-ʂə-pa-xəu = ke*	on the 28th
		ar-ʂə-tɕu-xəu = ke	on the 29th
	Days of the Tibetan	*wʑæ = ke*	on the fourth day
	lunisolar calendar	*zɣa = ke*	on the tenth day
		ɣæ-ŋuæ = ke	on the fifteenth day
	Days of the week	*ɕintɕʰiji = ke*	on Monday
		ɕintɕʰiwu = ke	on Friday
		ɕintɕʰitʰiæn = ke	on Sunday
	Hours of the day	*sæn tiæn ko = ke*	past three o'clock
		ʂə tiæn = ke	at ten o'clock
		tɕʰi tiæn pæn = ke	half past seven

In contrast to spatial semantic roles, the coding of Time is relatively straightforward. Table 7.11 above summarises the different categories of temporal expressions with either zero or dative coding for Time. The following originate from Chinese: modern months, days of the Gregorian month, days of the week, hours of the day. In addition to expressions illustrated in the table, the two demonstratives of Geshiza also host the dative for marking the moment an event occurs: *tʰə = ke, xə = ke* 'then, at this time, at that time'.

Use of postpositions and time as an endpoint

Finally, similar to the coding of locative semantic roles discussed above, postpositions (see §4.8) may be used for offering further precision concerning Time: e.g. *læsær* 'New Year', *læsær ŋui* 'before the New Year'.

Also, similar to the spatial setting, a temporal endpoint is coded with the terminative case in Geshiza (7.120). Such coding occasionally also shows limitative overtones, emphasizing that an event or action continues until an indicated temporal endpoint, but not subsequently (7.121):

(7.120) ***tʰævæ=lɔ*** *bɔ* *be* *dæ-lxua* *mi-zda.*
now=TERM thus flood.ABS PFV-appear.3 NEG- AUX.EXP.PERF
Until now, there has been no such flood (here). (RN: folktale)

(7.121) ***wsʰu-sni=lɔ*** *ạto* *g-ə-və.* *a*
three-CLF.day=TERM scripture.recitation.ABS PREF-NACT-LV:do.3 HES

ɣæ-ŋuæ=ke *d-ə-stʰæ-pʰə.*
ten-five=DAT PREF-NACT-finish-AUX.CAUS.NPST.3
(On the occasion of *ʑikʰro*), *ạto* ritual is conducted for three days. On the fifteenth day, it is finished. (RN; see §2.4.1 for the *ʑikʰro* festival and 2.7.1 for the *ạto* ritual)

7.4.11. Accompaniment

Accompaniment, also known as Comitative (see e.g. Whaley 1997: 65), is a semantic role for an entity accompanying the agent in performing an action. Accompaniment is manifested as animate and more narrowly as human in Geshiza, being coded with the comitative case enclitic *=pʰa* (§see 5.3.9), illustrated in (7.122-7.124):

(7.122) *ɣækʰa=je* ***ɕʰanvzə=ɲə=pʰa*** *dæ-ntɕæroŋ.*
outside=GEN **carpenter=PL=COM** PFV-have.a.fun.time.PST.1PL
We had a fun time with the carpenters who were outside. (RN: chronicle)

(7.123) ***ŋɛ=pʰa*** *sʰo* *vʑæ-ɣi* *dæ-zɣo.*
1SG.GEN=COM more five-CLF.person.ABS PFV-recruit.3
They had recruited four other people with me (to do construction work). (RN: personal history; see §7.2.3. *Reciprocity* concerning reciprocity among the Geshiza, e.g. people helping each other in major tasks, such as house building)

(7.124) […] *dəu~dəu* *ŋæ=ɲə* ***gæ-tɕʰæ-ŋi=pʰa*** *dʑa* *gæ-zloŋ.*
[…] RED.ADJZ~young 1=PL.ABS **ADJZ-old=PL.GEN=COM** tea.ABS IPFV-boil.1PL
We the young ones make tea with the old ones. (RN: procedure/ethnographic description)

7.5. Valency modification

This section analyses the effects of valency modification on argument expression. Causativisation constitutes the only productive valency modification device in contemporary Geshiza. Against this background, section is divided into two parts: causativisation (§7.5.1) and a brief mention of valency modification in non-productive devices (§7.5.2).

7.5.1. Causativisation

Causativisation is a valency-increasing operation in which a verb with valency *n* forms a causative equivalent of *n*+1 arguments as a result of an introduced agent (Comrie 1975: 2). In the transitive scenario (causer-related causation; see Kittilä 2013 for the terms causer- and agent-related), the introduction of an additional agent argument, i.e. causer, results in the causee carrying out an action or undergoing a change of state (Song 2013). In the intransitive scenario (agent-related causation), an agent argument is introduced, the causee being a patient.

Geshiza exhibits all three major typological instances of causative mechanisms laid out in Comrie (1989: 171-174): analytic, morphological, and lexical. In addition to lexical causativity that is by definition unproductive, e.g. *ŋgə* (V4) ‘to eat’ vs. *mə* (V4) ‘to feed’; *ndzo* (V2b) ‘to sit’ vs. *wzo* (V4) ‘to make to sit, plant (e.g. trees)’; *sʰæ* (V2b) ‘to die’, *v-sʰæ* (V4) ‘to kill’, Geshiza has two primary morphological strategies for coding causativity. These are the historical causative prefix *s/z-* (see §6.2.3.4 for the limited repertoire of historical causative derivations) and the causative auxiliary verb *-pʰə* (see §4.3.8 on Geshiza auxiliaries). The former is no longer productive while the latter has become the most frequent way of building causative expressions in the language. In rare cases, the two devices are both applicable and mutually interchangeable without major difference: *mə* (V1b) ‘to become ready, cooked (food)’ > *s-mə* (V3b), *mə-pʰə* ‘to cause to become ready, to cook ready’.

Table 7.12 on the next page illustrates the effects of causativisation on argument expression. While all verb classes include members that can be causativised, the effects of causativisation in argument indexation differ in intransitive and transitive verbs.

Table 7.12. Causativisation and argument expression in Geshiza

Type	Old arguments		New argument
intransitive	S (ABS)		
↓	↓		
caus. of intransitive	O (ABS)		A (ERG)
transitive	A (ERG)	P (ABS)	
↓	↓	↓	
caus. of transitive	A (DAT)	P (ABS)	A (ERG)

In Geshiza, the causativisation of an intransitive clause results in the original S becoming P and the new argument appearing in the A function (7.125, 7.126; see Dixon 2012: 239):

(7.125) *xu* (V1b) 'to collapse (by caving in)' > *xu-p^{h}ə* 'to make something collapse':

a	*'zdæra*	*ætɕ^{h}ə=ke*	*stɕær'*	*jə-mə-ræ.*	*'vtɕə=ke*
HES	wall.ABS	what=DAT	afraid.NPST.3	say.3-EP-SENS	mouse=DAT

	new argument A			causativised verb
stɕær=mde.	*vtɕə*	*lmo*	*ŋoŋ*	*xu-p^{h}ə=gæ'*
afraid.NPST.3=MOD	mouse	3.ERG	inside	collapse-AUX.CAUS.NPST.3=MOD

jə-mə-ræ
say.3-EP-SENS.
'What is the wall afraid of?' (the chieftain) asked. 'It is afraid of mice. Mice (make holes in it) and cause it to collapse,' (the steward-in-chief) said. (RN: joke)

(7.126) *ŋo* (V2b) 'to be sick' > *ŋo-p^{h}ə* 'to make sick, cause to ache':

S > O	causativised verb	new argument A
vəu	*ŋo-p^{h}ə=bɔ,*	*< səniəu> -va=wo.*
stomach.ABS	sick-AUX.CAUS.NPST.3	fodder-pig=ERG

The fodder-fed pork makes the stomach ache. (RC; notice also right the right dislocation discussed in §13.7)

In the case of causativisising a transitive clause, after the introduction of a new actor argument A, the original A argument is demoted into the dative case while the marking of the original P argument remains unchanged (7.127, 7.128). This occurs regardless of whether both actor arguments surface or not; pragmatic conditions frequently result in the deletion of arguments clear from the context.

(7.127) *lua* (V4) 'to hug' > *lua-pʰə* 'to make someone to hug':

new argument A			demoted A	O
ækə-stæmba	*lmo*	[…]	*xə=ke=tʰə*	*zgædær*
PN-PN	3.ERG	[…]	DEM=DAT=TOP	prayer.flag.pole.ABS

causativised verb
gæ-lua-pə=ræ
IPFV-hug- AUX.CAUS.NPST.3=LNK
A khu ston pa made (the man) hug a large prayer flag pole (of a temple). (RN: folktale)

(7.128) *rtsi* (V3b) 'to calculate, divine' > *rtsi-pʰə* 'to make someone calculate, divine':

lŋa=ɲə=je	*lmə*	*v-tʰæ*	*tɕʰa=tʰə*
child=PL=GEN	name.ABS	INV-give.name.NPST.3	when=TOP

demoted A		causativised verb	
a̯væl=ræ	*rstipa=ke=ræ*	*n-ə-rtsi-pʰə=ræ*	[…]
lay.priest=LNK	diviner=DAT=LNK	PREF-NACT-divine-AUX.CAUS.NPST.3=LNK	[…]

When giving children names, lay priests and diviners are asked to perform a divination (through which the name is selected)… (RN: ethnographic description)

Valency-decreasing non-prototypical use of -pʰə

Some valency modifications with *-pʰə* defy the logic of prototypical causativisation discussed above. Such deviation nevertheless occurs cross-linguistically. Some uses of causative morphemes lead to no increase in valency (Kittilä 2009) while they in even rarer cases trigger a decrease in valency (Kittilä 2013) across languages.

To illustrate, the Finnish causative marker *-tt-* has a double function. In addition to forming prototypical causatives (7.129), it also functions as a detransitiviser (7.130, 7.131; following page) or does not affect the valency of the host verb. When the causative morpheme is added in this non-prototypical function, the experiencer S argument must be coded with the partitive case.[67]

(7.129) *Hän* *pura-tt-aa* *vanha-n* *talo-n-sa.*
3SG.NOM demolish-CAUS-3SG.PREES old-ACC house-ACC-3SG.POSS
S/he will have his/her old house demolished. (constructed)

[67] See Pörn 2001 and 2004 for more a detailed discussion concerning the non-prototypical use of the causativiser *-tt-* in Finnish in what is known as 'tunnekausatiiviverbit' (emotive causative verbs) in the literature.

(7.130) *Minä* *pelkää-n* *sinu-n* *koira-a-si.*
1SG.NOM be.afraid-1SG.PREES 2SG-GEN dog-PART-2SG.POSS
I am afraid of your dog. (constructed)

(7.131) *Minu-a* *pelo-tt-aa.*
1SG-PART feel.afraid-CAUS-3SG.PREES
I feel afraid. (constructed)

The causative auxiliary *-pʰə* also carries a valency-decreasing function in Geshiza. In such function, the instigator of action shows a decrease in agency and the auxiliary invariably appears in the suffixless third person form. Two patterns stand out. First, a set of transitive verbs from the class 4 turn intransitive. In (7.132), attaching *-pʰə* to *lmə* (V4) 'to forget' intransivises the verb.

(7.132) *o* *æleæli=tʰə* *ntsʰælma* *dæ-nzli-sʰi=tʰə*
INTERJ sometimes=TOP dream PFV-dream-NMLZ:P.ABS=TOP

lmə-pʰə-ræ
forget-AUX.CAUS.NPST.3-SENS
Sometimes the dreams one sees are forgotten. (RN)

In a similar fashion, it intransitivises the verb *vdo* (V4) 'to see' in (7.133). Furthermore, examining changes in valency in (7.134) and (7.135) involving the transitive verb *smær* (V4) 'to like' also indicates that *-pʰə* has a valency decreasing intransitivising function in the pair.

(7.133) *e* *vdzi* *xo* *dæ-blə-sʰi.*
DEM person.ABS DEM.LOC PFV-disappear.3-IFR

mə-vdo-pʰə-ræ.
MOD.NEG-see-AUX.CAUS.NPST.3-SENS
That person disappeared over there. S/he cannot be seen. (MEE)

(7.134) *lŋa=ɲu* ***smær-ræ,*** *<joŋji>=tʰə.*
child=PL.ERG **like.3-SENS** potato.ABS=TOP
The children like the potato dish. (RN: procedure)

(7.135) *skærva=tʰə* ***smær-pʰə=bɔ.***
pilgrimage.ABS=TOP **like-AUX.CAUS.NPST.3=MOD**
Pilgrimages are very nice/liked indeed! (MEE)

Geshiza has no passive voice. Pragmatically, however, a need may arise to background an agent. This is especially important when the lexicon has lacunae: for instance, while Geshiza has a transitive verb *vdo* (V4) 'to see', its intransitive counterpart 'to be visible' is absent, unlike in many languages, such as Finnish or Japanese. The causative auxiliary *-pʰə* is consequently adopted to serve an intransitivising or passivising function. Typologically, passive constructions also originate from causatives (Haspelmath 1990: 46-49; see also *inter alia* Sohn 1999: 369-378 on Korean where the causativising and passivising suffixes are similar and occasionally identical). While *-pʰə* has not at the current stage of Geshiza evolved into a full-fledged productive passiviser as a secondary function, the cases where it alters valency differently from prototypical causatives are too numerous to be ignored.

Second, formally intransitive class 2 verbs that express feeling and sensation appear with the auxiliary *-pʰə* with the meaning 'feel (like) V' (8.136-8.138). While such verbs already are intransitive, their semantic transitivity further decreases. Prominently, no subject in either the absolutive or genitive case (see §7.4.5 for experiencer subjects) can be overtly marked in this construction, the implicit subject often being generic in nature.

(7.136) *gəɕʰo=me* ***stɕær-pʰə=bɔ.*** *gəɕʰo* *ɹ̥arira* *ŋa=tʰə*
evening=too **fear.NPST-AUX.CAUS.NPST.3-MOD** evening walk.INF 1SG=TOP

stɕoŋ=bɔ.
fear.NPST.1=MOD
I feel afraid in the evening. (MEE)

(7.137) *gæ-sro* *tɕʰa* ***spa-pʰə-ræ.***
IPFV-be.exposed.to.Sun when **be.thirsty.NPST-AUX.CAUS.NPST.3-SENS**
When being exposed to Sun, one feels thirsty. (MEE)

(7.138) *<tonɕi>* *dæ-ŋgi* *tɕʰa=ræ* *dɔ-ta* *tɕʰa=ræ*
thing PFV-eat when=LNK PFV-get.stuck.PST COND=LNK

mji-pʰə-ræ.
choke-AUX.CAUS.NPST.3-SENS
When eating, it something gets stuck (in the throat), one feels like choking. (MEE)

The emergence of *-pʰə* in a non-causative function from a causativising suffix is explained as follows. Pragmatical factors often lead to the deletion of self-evident arguments in Geshiza. Consequently, an original causer argument was deleted: e.g. 'X scares Y' > 'scares Y'. The resulting formation with no overt causer was subsequently reanalysed intransitively: '(Y) feels scared', Y being also dropped due to pragmatic reasons. Finally, the third person form was

extended over the whole new construction. Semantically, however, the new construction often involves a non-overt 'phantom causer'. For instance, in (8.128), the hot weather with a strong Sun causes people to become thirsty. In Geshiza, agent introduction is not possible for abstract entities, such as in *Her **beauty** made me speechless*; ***The Passing of time** caused me to forget the event*. Such 'causers' can only be inferred from the discourse context.

To summarise, Table 7.13 lists the major attested instances where the causative auxiliary *-pʰə* serves a non-prototypical function. This function is non-productive and non-exclusive: e.g. *stɕær-pʰə* is also used in prototypical causative constructions with the expected meaning 'to make someone afraid'. The present topic is expected to lead to both language-internally and typologically interesting results in further research. At the current stage, it is worth noting that a part of the verbs in the Table bears some resemblance to what Jacques (2013a) calls 'tropative', i.e. to consider to be X'. Japhug has few 'sigmatic' causative verbs that have a tropative meaning (Jacques, personal communication, September 11 2019).

Table 7.13. Non-prototypical use of the causativiser *-pʰə* in Geshiza

Base	Gloss	Causativisation	Gloss
lmə (V4)	to forget	*lmə-pʰə*	to be forgotten
v-ri (V4)	to find	*ri- pʰə*	to be found
smær (V4)	to like	*smær-pʰə*	to be liked, cute
vdo (V4)	to see	*vdo-pʰə*	to be visible
ɲjəu (V2b)	to be sleepy	*ɲjəu-pʰə*	to feel sleepy
snə (V2b)	to dare	*snə-pʰə*	to feel like daring
spa (V2b)	to be thirsty	*spa-pʰə*	to feel thirsty
stɕær (V2b)	to be afraid	*stɕær-pʰə*	to feel afraid
wjə (V2b)	to be hungry	*wjə-pʰə*	to feel hungry

Typological remark

Geshiza causativisations of transitive clauses exhibit class (v) properties of argument marking properties proposed by Dixon (2000). In Dixon's typology, argument marking of causative clauses is divided into five broad types based on how the original A and O behave after the introduction of a new agent argument. (i): specially marked A, original O; (ii): both A and O retain their original marking; (iii): both A and O have O marking; (iv) A has O marking while O receives a non-core marking; (v) A has non-core marking while O retains its original marking.

7.5.2. Other types of valency modification

Besides causativisation with the auxiliary *-pʰə* discussed above, all other valency modification devices in Geshiza remain highly unproductive. Of these, only causativisation with the prefix *z/s-* increases valency, and anticausativisation, intransitivisation, and reflexivisation have the

opposite effect. Autobenefactivisation has no effect on valency in the language. These largely unproductive devices are discussed in §6.2.3, a section dedicated to deverbal derivation.

Generalising from a limited data set has its dangers, yet changes in argument expression, if any, appear largely systematic also in historical non-productive valency modification. The results are summarised in Table 7.14 below. Causativisation with the historical causative prefix *z/s-* has mostly identical effects to the productive causative auxiliary *-pʰɔ*, especially in the realm of causativised intransitive clauses and less so in causativised transitive clauses. Anticausativisation and intransitivisation behave identically, turning the erstwhile P into S, accompanied with the deletion of the original A. In Geshiza reflexivisation, both A and P are demoted to a new S. Autobenefactivisation, namely the derivation of autobenefactives, does not affect argument expression in the language. Due to their marginal status in contemporary Geshiza reflected in a small corpus of non-elicited material containing contrasting example pairs, no examples of the processes are given.

Table 7.14. Non-productive valency modification and argument expression in Geshiza

Valency modification	Old arguments		New argument
hist. causativisation (intransitive)	S (ABS)		
	↓		
	P (ABS)		A (ERG)
hist. causativisation (transitive)	A	P (ABS)	
	↓	↓	
	A (DAT)	P (ABS)	A (ERG)
anticausativisation and intrantivisation[68]	A (ERG)	P (ABS)	n/a
	↓	↓	
	ø	S (ABS)	
reflexivisation	A (ERG)	P (ABS)	n/a
	↓ ←		
	S (ABS)		
autobenefactivisation	S/A (ABS/ERG)	(P) (ABS)	n/a
	↓	↓	
	S/A (ABS/ERG)	(P) (ABS)	

[68] Two morphologically distinct processes in Geshiza; see §6.2.3.5, §6.2.3.6.

7.6. Existential clauses

Geshiza is rich in existential verbs[69], a feature that is shared by many other Trans-Himalayan languages of the surrounding area, e.g. Mu(n)ya (Gao 2015: 314-323); Qiang (LaPolla and Huang 2007; Sims and Genetti 2017; Zheng 2016: 175), Stau (own fieldwork data; Huang 1991: 38; Jacques et al. 2015), Tangut (Ikeda 2012); Wadu Pumi (Daudey 2014: 298-302), Wobzi Khroskyabs (Lai 2017: 249-252).

Geshiza has five intransitive existential verbs used to form existential clauses, listed in Table 7.15. The verbs discussed here are the inanimate affirmative existential verb *də* (§7.6.1), inanimate negative existential verb *ma* (§7.6.2); inanimate inalienable existential verb *wi* (§7.6.3); general animate existential verb *dʑi* (§7.6.4); inessive existential verb *ndʑə* (§7.6.5); and group-based animate existential verb *mdʑi* (§7.6.6). Additionally, the transitive verb *sti* 'to put, place, leave' is occasionally used for surface-based alienable existence, but cannot be classified as a full grammaticalised existential verb in the language (§7.6.7).

The use of existential verbs is determined by 1. the polarity value of existence (affirmative, negative); 2. animacy of the referent (animate, inanimate); 3. locus of existence (containment, attachment, etc.); and 4. alienability (alienable, inalienable). Not all of the properties also shown in Table 7.15 are distinctive, but rather included for the clarity of description.

Table 7.15. Geshiza existential verbs and their properties

Verb	Polarity	Animacy	Locus	Alienability
də (V1b ~ V2b)	affirmative	inanimate	general	not relevant
ma (V1b ~ V2b)	negative	mostly inanimate	general	not relevant
wi (V1b ~ V2b)	affirmative	inanimate	attachment	inalienable
ndʑə (V2b)	affirmative	not relevant	container	not relevant
dʑi (V2b)	affirmative	animate	general	not relevant
mdʑi (V2b)	affirmative	animate	group	not relevant
sti (V3b)	affirmative	inanimate	surface	alienable

Even though the existential verbs *də*, *ma*, and *wi* appear most frequently without inflection, a trait of the class 1b (7.139), they can also be conjugated as a class 2b intransitive verbs, indexing person, but not number (7.140). In other words, this subset of existential verbs also carrying a possessive function may either index the possessor or the possessum.

[69] Existential verbs are occasionally classified under copulas, but the present description considers the two functionally distinct. As discussed in §7.3.4, Geshiza copulas express identity or (inequation) and group (dismembership) or inclusion/exclusion between the noun phrases of a copular subject and its complement. In turn, existential verbs encode existence of entities, and by extension, possession.

(7.139) *ɲi=ke=tʰə* *vdzor* ***mi-wi=gæ.***
1=DAT=TOP wing.ABS **NEG-EXV.3=MOD**
You have no wings. (dragonfly talking; RN: folktale)

(7.140) *ŋæ=næ=ke* *vdzor* ***wan*** *tɕʰu* *bjoloŋ=gæ.*
1=DU=DAT wing.ABS **EXV.1** CONJ fly.1=MOD
We two have wings, so we fly! (dragonfly talking; RN: folktale)

While the existential verbs primarily construct existential clauses, *də* and *ma* have a secondary function of expressing predicate possession in which case they form extended intransitive clauses (see § 7.3.2) where the (dis)possessor is marked with the genitive case (7.141, 7.142). Often, both an existential and a possessive interpretation appear possible (7.143), which is not surprising, since the functions of existence and possession are often intertwined in the world's languages (see Stassen 2009).

(7.141) ***sme=je*** *tsʰæzgə* *gæ-ma-sʰi* *ŋuə-ræ.* *dzi*
woman=GEN clothes. ABS IPFV-NEG.EXV-NMLZ COP.3-SENS food.ABS

gæ-ma-sʰi ***ŋuə-ræ.***
IPFV-NEG.EXV-NMLZ **COP.3-SENS**
The woman (living in the wilderness) had neither clothes nor food. (RN: folktale)

(7.142) *lŋa=wo* *dæ-jə-wo:* ***'ŋɛ*** *væ-mæ* ***ma.'***
child=ERG PFV-say.3-QUOT **1SG.GEN** father.CS-mother.ABS **NEG.EXV**
The child said: 'I don't have parents (lit. father and mother).' (RN: folktale)

(7.143) *tʰævæ=tʰə~tʰə* ***lŋa=ɲi*** *<jyarjyæn>* ***də-ræ.***
now=TOP~RED **child=PL.GEN** kindergarten.ABS **EXV.3-SENS**
The children have a kindergarten now. / There is a children's kindergarten now. (RN: procedure)

Geshiza commonly avails of the full lexical transitive verb *ntɕʰo* (V3b) 'to have, possess' for predicate possession (7.144). Except the polar pair *də* and *ma*, all other existential verbs are negated normally using standard negation (see §11.2.1): e.g. *mi-wi, mi-ndʑə.*

(7.144) *ŋæ=ntsʰe* *ŋui* *tsʰæ-ji* *wətsʰe* ***dæ-ntɕo-sʰi*** ***ŋuə-ræ.***
1=ASS before goat-sheep.ABS many **PFV-have.PST.3-NMLZ** **COP.3-SENS**
In the past, our (house) had many goats and sheep. (RN; see §2.5.2 for changes in Geshiza domestic animals)

Origins of existential verbs

Yu (2018) argues that existential verbs in many Trans-Himalayan languages have grammaticalised from verbs denoting living or sitting, sometimes reaching the domain of possession: 'live, sit' > existence > possession. As discussed earlier, predicate possession is possible with some Geshiza possessive verbs, yet their historical origin remains unclear, requiring further comparative research to confirm the likely applicability of Yu's hypothesis.

7.6.1. Inanimate affirmative existential verb *də*

The usually non-conjugable existential verb *də* (V1b ~ V2b) can only be used to describe the existence of an inanimate S (7.145). The existential verb is commonly used for the existence of manufactured objects (*ʈʂʰetsə* 'car'); buildings and constructions (*mkʰær* 'tower'); spaces (*ɪŋo* 'river'); substances (*pʰəslə* 'dust'); harvested agricultural produce (*jime* 'corn'), and abstract entities (7.146). As discussed in §7.6.3, plants generally require the inanimate inalienable existential verb *wi*, except when they exist as portable entities, e.g. in flower pots.

(7.145) *va-dzi=tʰə* *rdʑe-ræ,* *æ-ŋuə-ræ.* *re-jo*
pig-food.ABS=TOP be.abundant-SENS Q-COP.3-SENS turnip.CS-field.ABS

dʑo~dʑo ***də-ræ*** *tɕʰu.*
RED.ADJZ~many **EXV-SENS** CONJ
There are many turnip fields (in the summer), so there is a lot of pig food, right? (RC)

(7.146) '<*ʂətɕæn*> ***də-ræ'*** *dæ-joŋ.*
time.ABS **EXV-SENS** PFV-say.1
I told him: 'There is time.' (RN: chronicle)

The inanimate affirmative existential verb *də* contrasts with the animate existential verbs discussed in detail in the sections below. In (7.147), the existence of a monastery is consequently expressed with *də*, but that of lamas and a reincarnated master requires a shift into *dʑi*, the animate existential verb:

(7.147) *bəmbə-rgəmba* ***dæ-də=ræ*** *sʰo* *læma* *a*
Bön-monastery.ABS **PFV-EXV**=LNK more lama.ABS HES

skəʑə *bɔtʰə=be* ***dæ-dʑi=ræ.***
reincarnated.master.ABS like.that=too **PFV-EXV.3**=LNK
In Xinqu, there was a Bön monastery and moreover, there were lamas and a reincarnated master, like that as well. (RN: local history)

When an S is used with both *də* and *dʑi*, the former implies that it is alive (7.148), while the latter implies that it is dead, and has thus turned inanimate (8.149):

(7.148) *rgo* *æ-rgəu* ***dʑi-ræ.***
cow one-CLF.general. ABS **EXV.3-SENS**
There is a cow (that is alive). (MEE)

(7.149) *rgo* *æ-rgəu* ***də-ræ.***
cow one-CLF.general.ABS **EXV.3-SENS**
There is a cow (that has died). (MEE)

7.6.2. Negative existential verb *ma*

The existential verb *də* has a negative counterpart *ma* (V1b ~ V2b) that is further discussed in §11.2.5, a chapter dedicated to existential negation. As its basic function, *ma* expresses the non-existence of an inanimate entity (7.150, 7.151), but the verb also appears with animate entities (7.152, 7.153). The related Wobzi Khroskyabs has 11 existential verbs, among which animacy plays a role in the 10 affirmative existential verbs, yet the negative existential verb *mí* is described as general with no reference to animacy (Lai 2017: 249-252).

Inanimate:

(7.150) *<ʂə-ji-jyefən>* *ɲo* *tɕʰu* ***tsʰe*** ***ma-ræ=gæ,*** *æ-ŋuə-ræ.*
ten-one-month after CONJ **vegetable.ABS** **NEG.EXV-SENS**=MOD Q-COP.3-SENS
So after November, there are no vegetables (because of the cold weather), right? (RC)

(7.151) ***<ɕʰoɕʰəu> -ko*** *bɔtʰə* ***dæ-ma=gæ***
school-LOC.SUFF.ABS like.this **PFV-NEG.EXV**=MOD
(Unlike now, before) there were no schools! (RN: personal history)

Animate:

(7.152) *pʰe=tʰə* *sʰo* ***jə-me*** ***dæ-ma=ræ*** *tɕʰu* […]
other=TOP more **say-NMLZ:S.ABS** **PFV-NEG.EXV**=LNK CONJ […]
There were no others saying (like that)… (RC)

(7.153) *ɲje=be* ***rjəu*** ***ma.***
ANAPH.GEN=too wife NEG.EXV
He had no wife either. (RN: folktale)

In the source materials, the use of *ma* for animate entities generally appears in nominalisations with animate referents (7.145) and in a dispossessive construction in the interface of existence and possession (7.146). Overall, an analogically negated animate existential verb *mi-dʑi* 'not to exist' (see §7.6.4) is used for non-existing animate entities.

7.6.3. Inanimate inalienable existential verb *wi*

The existential verb *wi* (V1b ~ V2b) indicates inalienable and immovable existence with usually in an attachment relationship that cannot be broken without exerting energy (7.154). Typical contexts include leaves and branches of a tree; trees and plants vis-à-vis the ground (7.155); and body members, including body hair and moles (7.156). The verb also appears in abstract contexts, e.g. (7.157) in which a label, name, is metaphorically attached to an individual. As a result of modern technology, *wi* is now also used for information that has been saved in the memories of phones and computers.

(7.154) *ra=**ke**=ræ* *dʑədə* *næ-v-ræ-s^{h}i* *æ-lə* ***wi-ræ.***
cliff=**DAT**=LNK writing PFV-INV-write.3-NMLZ:P one-CLF.INDEF.ABS **EXV-SENS**
The cliff has a writing written on it. (RN: local history)

(7.155) *tɕæ-wo=dʑe* *k^{h}æmbə-s^{h}i* ***wi-ræ.***
road-SUPE=TOP sweet.apricot-tree.ABS **EXV-SENS**
There is a sweet apricot tree on the road(side). (RN: chronicle)

(7.156) *ʑa=ke* *mərja* ***wi-ræ.***
arm=DAT hair.ABS **EXV-SENS**
People have arm hair. (lit. There is hair on the arm). (MEE)

(7.157) *'lmə* *ætɕ^{h}ə* ***wi'*** *dæ-jə=ræ* *'lmə* ***æŋ=ke*** *bələmbə*
name.ABS what.ABS **EXV** PFV-say.3=LNK name.ABS **1SG=DAT** PN.ABS

ŋgær *jə'* *dæ-jə-s^{h}i* *ŋuə-ræ.*
PN.ABS say.3 PFV-say.3-NMLZ COP.3-SENS
'What is your name?' (the Emperor) said. 'I am called *bələmbə ŋgær* (Tib. *blon po mgar*),' he said. (RN: folktale; see *Appendix IV: List of prominent figures*)

Inanimate inalienable existential verb *wi* forms extended intransitive clauses where the dative case marks the Possessor or the Location of existence (7.157), except in clauses that contain a demonstrative pronoun (see §4.5.2) changing into the locative case (7.158), or a noun with a historical locative case marker (see §5.3.11) attached (7.159):

(7.158) *e* *tʰo* *ɑ̀mærmi* ***wi-ræ.*** *tʰo* ***wi.***
DEM DEM.LOC beard.ABS **EXV-SENS** DEM.LOC **EXV-SENS**
She (a woman living in inhabited mountain wilderness and turning into a wildman) had beard here and here (speaker pointing around his body). (RN: folktale)

(7.159) *je* *mtsʰo-wa=ræ* *pælma-mætɔ* *jə-me=tʰə* ***dæ-wi=ræ*** […]
DEM lake-APUD=LNK lotus-flower say-NMLZ:P.ABS=TOP **PFV-EXV**=LNK […]
At that lakeside, there was a flower called lotus. (RN: folktale)

Plants require the existential verb *wi*. The Geshiza consider plants inanimate (see also §2.7.2), which makes them incompatible with the general animate existential verb *dʑi* introduced in the following section. This reflects a belief held by many Tibetans that plants lack *srog* '(life) force'. The inanimate existential verb *də* discussed previously is also generally inapplicable to plants that grow attached to something, except in alienable contexts, such as a plant planted to a flower pot that itself can be moved (7.160):

(7.160) *rbæmæ=je* *tɕʰa* *mætɔ=ɲə* ***də-ræ.***
rooftop=GEN on flower=PL.ABS **EXV**-SENS
There are flowers on the rooftop (in movable flower pots). (MEE)

7.6.4. General animate existential verb *dʑi*

The existential verb *dʑi* (V2b) indicates general animate existence of people and animals (7.161, 7.162). In addition to being used with visible animate subjects, it is also necessary for the generally invisible beings inhabiting the Geshiza world (see §2.7.2), for instance *ɕʰæɳɖʑi* 'demons'; *vdə* 'ogres'; and *srəmbo* 'ogresses', since they are seen as personal animate creatures. In many contexts, the existential verb *dʑi* has a strong locational nuance: 'to exist at a particular location'.

(7.161) *ɑ̀na=tʰə~tʰə* *ŋæ=ɲi* *xo=be* *<tiæntʂutɕəu>* *æmɲi*
past.ABS=TOP~RED 1=PL DEM.LOC=too Catholic grandfather

æ-ɣi ***dæ-dʑi-sʰi*** ***ŋuə.***
one-CLF.person.ABS **PFV-EXV.3-NMLZ** **COP.3**
In the past, our place too had an old man who was a Catholic Christian. (RN; see §2.7.1 concerning the general rarity of non-Tibetan missionary religions in Geshiza lands)

(7.162) *tʰævære* *lŋa=ɲə* *braŋgu* ***dʑi-ræ*** [...]
present.ABS child=PL.ABS TOPN.ABS **EXV.3-SENS** [...]
At present, the children are in Danba County Town... (RC)

The animate existential verb *dʑi* is also frequently used for the meaning 'to be alive' of animals and people (7.163). It is also commonly used to convey the notion of being present somewhere (7.164).

(7.163) *ŋuidə=tʰə* *ŋæ=tsʰe* *væ* *sʰæji* ***dʑi*** *tɕʰa=be* *ŋæ=tsʰe*
past.ABS=TOP 1=ASS.GEN father late.ABS **EXV.3** when=too 1=ASS.GEN

væ *sʰæji* *lməu* *g-ə-vɕæ-me* *dæ-ŋuə=je.*
father late 3.ERG PREF-NACT-tell.NPST.3-NMLZ:S/A PFV-COP.3=MOD
In the past, when our late father was still alive, he used to tell (us stories). (RC)

(7.164) *tɕʰu* *lala* *lmæ* *tʰi* *ɲo* *rə-lxua.* *'va-dzi=ɲə*
CONJ maternal.aunt 3.ABS DEM.GEN after PFV.DIR-appear.3 pig-food=PL.ABS

tsəu' *jə* *tɕʰu* *ŋa* ***dʑan=ræ*** *'mə-ɕe'* *joŋ-ræ.*
slice.NPST.1SG say.3 CONJ 1SG.ABS **EXV.1**=LNK MOD.NEG-need say.1=LNK
After that, the mother of my daughter-in-law appeared. 'I will cut the pig food shrubs (since your wife is sick),' she said. Since I was at home (and thus able to do the job myself, I told (her) that there is no need (for that). (RC)

7.6.5. Inessive existential verb *ndʑə*

The inessive existential verb *ndʑə* (V2b) indicates existence inside space that is conceptualised as a container. The space may be an actual prototypical human-made container (7.165) or a confined natural object (7.166). While inanimate subjects dominate, the existential verb is nevertheless also compatible with animate subjects.

(7.165) *dəva* *noŋ* *<japʰiæn>* ***ndʑə-ræ.***
cigarette.ABS inside opium. ABS **EXV.3-SENS**
There is opium inside the cigarette. (UA: joking)

(7.166) *ɕʰiɕʰi* *næ-ŋgi.* *ʁjə* *noŋ* *ʂnova* ***ndʑə.***
slowly IMP-eat.2SG fish.ABS inside fish.bone.ABS **EXV.3-SENS**
Eat slowly! There are bones in the fish. (OU)

7.6.6. Group-based animate existential verb *mdʑi*

The existential verb *mdzi* (V2b) is used for existence in a group in animate contexts, mostly restricted to human subjects. In sentence (7.167), the reference group is the group of pilgrims on a *skærva* 'pilgrimage, circumambulation trip', of which the speaker was a part. Also, the existential verb is used for belonging to organisations, such as the Red Army in (7.168):

(7.167) *æqɛ=nɔ* *wsʰu-sqʰa* *tɕʰa* *bɔlə* ***dæ-mdʑan.***
all=TOP.C three-ten above about **PFV-EXV.1**
Altogether, we were more than thirty people (in the group). (RN: personal history)

(7.168) *oja* *xə* *tɕʰa=ræ* *ŋui* *<xontɕyn>=nɔ* ***dæ-mdʑi*** ***zda-ræ.***
INTERJ DEM time=LNK before Red.Army=LOC **PFV-EXV.3** **AUX.EXP.PERF-SENS**
Before, at that time, he was in the Red Army. (RN: family history)

7.6.7. Use of *sti* 'put, place, leave' in existential clauses

The verb *sti* (V3b) 'to put, place, leave' with cognates in other Horpa languages has developed a special function for indicating surface-based inanimate alienable existence. In other words, the verb is used occasionally to describe the existence of movable inanimate objects that have prototypically been placed into their locations on surfaces by prototypically human agents at an unspecified point before observation, with the implication that they can also be removed by such agents (7.169). Of all verbs used for expressing existence, *sti* is transitive and appears conventionally with the orientational prefix *rə-* 'up, away from the river' (see §8.2).

(7.169) *gandzə* *<ʈʂuotsə>* *tɕʰa* ***rə-sti.***
cup.ABS table.ABS on **PFV.DIR-place.NPST.3**
A cup is on the table. (stimulus kit: Bowerman and Pederson. 1992)

In the closely related Stau (Huang 1991: 38) analyses the cognate *sti* as an existential verb for movable entities, an analysis supported by personal own fieldwork (7.170).[70] In Geshiza, *sti* cannot be considered a fully grammaticalised existential verb and its use is also ungrammatical in the context illustrated by Huang (7.171). First, the language lacks contexts where its use is compulsory, unlike with all previously introduced verbs. To illustrate, (7.169) can be rephrased into (7.172) with the introduction of the inanimate existential verb *də*:

(7.170) Stau:
qa=ʁa *kʰava* *sti-rə*
mountain=ALL snow place.NPST.3-SENS
There is snow on the mountain. (Huang 1991: 38; added English glosses, *=ʁa* analysed as clitic)

[70] To complicate things, Stau lects have two verbs *sti* and *stʰo ~ stʰə* that correspond to Geshiza *sti*. Of these, *sti* is a pure existential verb and *stʰo ~ stʰə* a verb of placement.

(7.171) Geshiza:
qa(=ke) ŋkʰæva sti-ræ.
mountain(=DAT) snow.ABS place.NPST.3-SENS
Intended meaning: There is snow on the mountain. (REJ; use of *də-ræ* considered correct for *sti-ræ*; dative coding for the location optional)

(7.172) *<gandzə>* *<ʈʂuotsə>* *tɕʰa* ***də.***
cup.ABS table.ABS on **EXV**
A cup is on the table. (ACC; see 7.169)

Second, the verb is still mostly used in its core meaning 'to put, place, leave', the agent either pragmatically obvious or present in the clause (7.173):

(7.173) *rdʐæ* *tʰu=ræ* *'<tiænxua-xəuma>* ***rə-sti'*** *jə.*
Chinese DEM.ERG=LNK phone-number.ABS **IMP-leave.NPST.2SG** say.3
Leave me your phone number!' the Chinese said. (RN)

Finally, Geshiza includes a set of placement verbs, such as *ŋkʰuə* (V4) 'to put, place inside a container'; *v-tʰa* (V3b) 'to attach, join'. Since the language lacks a passive construction, such verbs also appear without an agent for describing the existence or placement of objects, the appropriate verb selected based on the perceived manner of placement: e.g. hanging down, put inside a space etc. In conclusion, *sti* belongs to this set of verbs. In Geshiza, it is best interpreted as a full verb with a secondary function of encoding existence.

7.7. Similative, equative, and comparative clauses

This section discusses similative, equative, and comparative constructions. Of these, similative and equative constructions have been less prominently discussed from a typological perspective or even language-specifically (Treis and Vanhove: 2017). All three constructions nevertheless show many similarities to each other (Haspelmath with Buchholz 1998). Against this backdrop, due to their constructional similarity in Geshiza, similative clauses (§7.7.1) need to be discussed for explaining equation (§7.7.2) and comparison (§7.7.3) in the language.

7.7.1. Similatives

Similative asserts likeness between two entities: X is like Y, i.e. 'Lawyers are like sharks'. In Geshiza, the similative construction takes the form of a copular clause (see §7.3.4): NP1 NP2 *bɔ(tʰə)* COP. The similative construction is commonly used for cultural similes that show cross-linguistic variation. To illustrate, the Geshiza commonly compare the steepness of a road to the sharp metal plough blade of a traditional wooden plough (7.174):

(7.174) *tɕæ=tʰə* *stɕʰu* ***bɔtʰə*** *ŋuə-ræ,* *stɕʰu.*
road.ABS=TOP plough.blade.ABS like COP.3-SENS plough.blade.ABS
Thre road was like a plough blade, plough blade. (RN: chronicle).

The alternative form for *bɔ* in the construction is *bɔtʰə* and it originates from *bɔ* 'so, like, thus' and *tʰə* 'demonstrative pronoun' (see §4.5.2), *bɔ* and *bɔtʰə* two being interchangeable. The adverb *bɔ(tʰə)* still retains in use outside the scope of similatives and equatives introduced in the following section (7.175). It has also evolved an approximative meaning (7.176). Also, contrary to Duo'erji (1997: 107), *bɔ(tʰə)* is not interpreted as a fully grammaticalised equative case enclitic on par with other case enclitics in the present work. For one, its distributional properties differ. While the case enclitics require a host, *bɔ(tʰə)* also appears independently (7.177):

(7.175) [name removed]=*ke=ræ* ***bɔtʰə*** *joŋ* *tɕʰu.*
[name removed]=DAT=LNK **like.this** say.1 CONJ
I will tell [name removed] like this. (RN)

(7.176) *va* *ntɕə* *tɕʰa=ræ* *zə-ŋui* *d-ə-kʰroŋ.*
pig.ABS slaughter.npst.3 when=LNK SUPL-first PREF-NACT-catch.NPST.1PL

vdzi *wʑæ-ɣi* ***bɔ*** *d-ə-zɣoŋ.*
man five-CLF.person.ABS **like** PREF-NACT-recruit.1PL
When slaughtering pigs, first we catch (one). We recruit about four people (to carry out the slaughtering). (RN; see §2.5.2 for the customs related to pig slaughter among the Geshiza)

(7.177) ***bɔ*** *gæ-tɕʰæ* *ŋoŋ-ræ=gæ.*
thus ADJZ-big.ABS COP.1-SENS=MOD
We are so big (so that one horse is not enough for two)! (RC)

7.7.2. Equatives

As defined by Haspelmath (2017a), 'an equative constructions express situations in which two referents have a gradable property to the same degree'. Illustrated in (7.178), an equative sentence maximally consists of five constituent parts (Haspelmath and Buchholz 1998; Haspelmath 2017a). The terms PARAMETER MARKER (Haspelmath and Buchholz 1998) and DEGREE-MARKER (Haspelmath 2017a) are synonymous.

(7.178)	1		2	3	4	5
	My sister	*is*	*as*	*pretty*	*as*	*you.*
	COMPAREE		PARAMETER MARKER/ DEGREE-MARKER	PARAMETER	STANDARD-MARKER	STANDARD

Geshiza equative clauses take the form NP1 (COMPAREE) NP2 (STANDARD) *bɔ(tʰə)* (STANDARD-MARKER) *ɳɖʐaɳɖʐa* (PARAMETER MARKER) PARAMETER COP. They thus greatly resemble similative clauses by having an additional PARAMETER and optional PARAMETER MARKER that is absent in the latter. The parameter is generally an adjective (7.179), but stative verbs are also allowed (7.180). The PARAMETER MARKER is commonly absent. In elicited instances, it is however attested in the form of *ɳɖʐaɳɖʐa* 'same, alike, similar', an adjective borrowed from the Tibetan *'dra 'dra* 'same, alike, similar' (7.181). The use of a parameter marker in Geshiza is identical to that in Mu(n)ya where a Tibetan *ndzɛndzɛ* is attested Gao 2015: 421-423).

(7.179)	*ŋa*	*ɲi*	*bɔ(tʰə)*	*gæ-tɕʰæ*	*ŋoŋ.*
	1SG.ABS	2SG.ABS	like	ADJZ-big. ABS	COP.1
	COMPAREE	STANDARD	STANDARD-MARKER	PARAMETER	
	I am equally big (or old) as you. (MEE)				

(7.180)	*ŋa*	*ɲi*	*bɔ(tʰə)*	*tɕʰoŋ.*
	1SG.ABS	2SG.ABS	like	be.big.NPST.1
	I am equally big (or old) as you. (MEE)			

(7.181)	*ŋa*	*ɲi*	*bɔ(tʰə)*	*ɳɖʐaɳɖʐa*	*gæ-tɕʰæ*	*ŋoŋ.*
	1SG.ABS	2SG.ABS	like	same	ADJZ-big. ABS	COP.1
	I am equally big (or old) as you. (MEE)					

7.7.3. Comparatives

Using terminology from Stassen (1985), further elaborated by Dixon (2010, 2012), Gesihza comparative takes the canonical form COMPAREE + STANDARD + MARK (*= bɔmŋa ~ = bɔmja)* + INDEX (*ske ~ skəu)* + PARAMETER (+ COP), illustrated in (7.182, following page). The copula is only present when the parameter is not a non-prefixed stative verb capable of functioning as a predicate independently. The MARK *=bɔmŋa ~ =bɔmja* literally means 'not like' while the INDEX *ske ~ skəu* acting as a modifier for the parameter is an adverb with the meaning 'more'. Unlike the index that has a self-standing existence, *= bɔmŋa ~ = bɔmja* is a case clitic (see § 5.3.10 for the comparative case) that requires a host to attach to. Also, since the STANDARD is marked with the following MARK *=bɔmŋa ~ =bɔmja,* no ambiguities arise even if the standard is fronted to the beginning of the comparative clause (7.183).

(7.182) *məsni* *mægə=**bɔmɲa*** *skɛ* *wtsæ-ræ.*
today.ABS yesterday=**CMPR** more be.hot.NPST-SENS
COMPAREE STANDARD=MARK INDEX PARAMETER
Today is hotter than yesterday. (MEE)

(7.183) *mægə=**bɔmɲa*** *məsni* *skɛ* *wtsæ-ræ.*
yesterday=**CMPR** today.ABS more be.hot.NPST-SENS
STANDARD=MARK COMPAREE INDEX PARAMETER
Today is hotter than yesterday. (ACC; see 7.182)

The range of word classes appearing most frequently as the PARAMETER in Geshiza comparative constructions includes 1. the adjective classes comprising prefixed adjectives (see §4.4.2): *skɛ gæ-tɕʰæ* 'bigger'; reduplicated adjectives (see §4.4.3): *skɛ dəu~dəu* 'smaller'; and non-marked adjectives (see §4.4.4): *skɛ ɪɲoŋba* 'older', 2. postpositions (see §4.8): *skɛ ŋui* 'earlier', 3 stative verbs (see §4.3.4.2, §4.3.4.3): *skɛ rkʰo* (V1a) 'colder'; *skɛ bji* (V2a) 'taller', 4. other verbs: *skɛ tɕʰa* (V2b) to be more able'.

Geshiza prefers to omit the pragmatically obvious, with the result that the full comparative construction rarely occurs. The whole comparative construction is not attested in the non-elicited source materials and examples (7.182, 7.183) are monolingually elicited on the basis of the collected source materials. The findings agree with the brief discussion in comparison by Duo'erji (1997).

Omissions of the STANDARD with its MARK *=bɔmɲa ~ =bɔmja* happen frequently in everyday conversation. In (7.184), the STANDARD=MARK *keɕan=bɔmɲa* 'not like the city' following the COMPAREE *nontsʰun=nɔ=tʰə* would be self-evident for Geshiza speakers, as *ɲi=bɔmɲa* 'not like you' following the COMPAREE *ŋa=tʰə* in (7.185):

(7.184) *xe* *ɲo* *braŋgu=tʰə* *sʰo* *<tɕəutʰon>* *<fanpiæn> -ræ*
DEM.GEN after TOPN.ABS=TOP DM transportation.ABS be.convenient-SENS

tɕɔ-ræ, *<keɕan> =tʰə.* *<nontsʰun> -nɔ=tʰə* *skəu*
be.pleasant.NPST-SENS town. ABS=TOP countryside-LOC=TOP more

rka-ræ.
be.hard.NPST-SENS
Then, transportation in Danba County Town is convenient and comfortable, in the city. It is harder in the countryside. (RC)

(7.185) *ŋa=ɕʰə* *boboŋ=ræ* *tɕʰu* *ŋa=tʰə* *skɛ* *ŋui* *ŋgu.*
1SG.ABS=FOC.C busy.1=LNK CONJ 1SG.ABS=TOP more early eat.1SG
I am busy, so I will eat earlier (than you). (RN: folktale)

Comparison in Geshiza is compatible with negation (7.186):

(7.186) *tʰævæ=tʰə~tʰə* *leska=be* *skəu* ***gæ-mɛ-rkʰa.***
now.ABS=TOP~RED physical.labour.ABS=too more **IPFV-ASP.NEG-be.tiring.PST**
Now, work too is less tiring (than it used to be). (RN: local history)

Other patterns

Speakers frequently diverge from the canonical comparative construction. First, instead of the dedicated marker *skɛ*, *sʰo*, the general adverb *sʰo* 'more', many be used as the INDEX. In (7.187), the speaker is commenting how cats are adept at using the rather steep ladder leading to the highest rooftop of the house, while in (7.188), *mgar*, a Tibetan culture hero is attempting to identify Princess Wencheng of China from among many beautiful ladies.

(7.187) *vdzi=bɔmja* ***sʰo*** *qʰi-ræ.*
person=CMPR **more** be.awesome.NPST.3-SENS
(Cats) are even better than people (at climbing the ladder leading to the rooftop). (UA)

(7.188) *æntɕoŋma=bɔmŋa* ***sʰo*** *gæ-pʰru* *sʰo* *bɔ=be* *dʑi-ræ.*
PN=CMPR **more** ADJZ-white more like=too EXV.3-SENS
There are more (ladies) that are whiter than Princess Wencheng. (RN: folktale)

The construction 'more and more ADJ' takes the form *sʰo* ADJ *sʰo* ADJ (7.189):

(7.189) *wnæ-wsʰu-slə* *ɲo=ræ* *xaræ* *e* *lmo* *dzi* ***sʰo***
two-three-CLF.month.ABS after=LNK CONJ HES 3.ERG food.ABS **more**

gæ-wre ***sʰo*** ***gæ-wre*** *ŋgə-mə-ræ.*
ADJZ-lot **more** **ADJZ-lot** eat.3-EP-SENS
After two-three months, he (*æmŋi skældoŋ*) ate even more and more food. (RN: folktale; see *Appendix IV: List of prominent figures* for the culture hero *æmŋi skældoŋ* famous for his enormous appetite since birth.)

Diachrony of the construction

Diachronically, the Geshiza comparative construction appears as bi-clausal, consisting of negative copular cause followed by either another clause (7.190, following page):

(7.190) [*məsni* *mægə* ***bɔ*** ***mɲa***.] [*ø* *skɛ* *wtsæ-ræ*.]
today.ABS yesterday.ABS **like** **NEG.EXV.3** (today) more be.hot.NPST-SENS
COMPAREE STANDARD MARK (COMPAREE) INDEX PARAMETER
Today is not like yesterday. (Today) is hotter. (MEE; see 7.182)

In synchronic analysis, the behaviour of the MARK *= bɔmɲa ~ = bɔmja* differs from the negative copula *mɲa ~ = mja*. While the negative copula is a class 2b intransitive verb with number indexation, the MARK in comparative constructions maintains an unchanging form in all contexts. This illustrates its grammaticalisation, away from the etymological origins explained above. Consequently, synchronically speaking, the comparative construction should be seen as monoclausal, *= bɔmɲa ~ = bɔmja* having grammaticalised into a MARK of comparison.

7.8. Word order

Based on the previous discussion, the present section discusses word order in Geshiza. The key topics include core arguments and basic word order (§7.8.1) and adjunct position (§7.8.2). Discussion on right dislocation (see §13.7), an information packaging strategy influencing word order, is omitted here.

7.8.1. Core arguments and basic word order

Since being popularised by Joseph Greenberg's seminal research, word order has fascinated typologists throughout the relatively short history of the research field, having been subject to a multitude of studies, the general tendency of which has been an increasing sample size of included languages and more reliable data used. In a representative study a the sample size of 1377 languages, Dryer (2013a) finds the order SOV to dominate typologically (41.0%), closely followed by SVO (35.4%). Other recent extensive studies have reached similar conclusions, e.g. Hammarström (2015) with a sample size of 5230 languages: SOV (43.3%), SVO (40.2%).

Seen from the viewpoint of frequency, Geshiza exhibits the dominant word order of AOV, SV (7.191, 7.192). The language thus manifests the typologically most common dominant word order in the world's languages. As mentioned in §1.5.1, the language likely retains the order of its Proto-Trans-Himalayan parent. Since the Geshiza verb can index both the subject or object, one at a time, finding a full manifestation of AOV is rare due to pragmatic reasons. Especially the personal pronouns are often omitted when no emphasis is intended.

(7.191) A P V
læma = ɲu *ntɕʰæn* *gæ-və-sʰi*.
lama=PL.ERG Tibetan.drama.ABS IPFV-LV:do.3-SENS
The lamas played Tibetan drama (MEE).

(7.192) S V
mæ *gæ-ʑe-s^{h}i.*
rain.ABS IPFV-come-IFR
It is raining. (UA)

7.8.2. Adjunct positioning

As the main categories, the source materials include temporal, locative, instrumental, and adverbial adjuncts, each treated below:

Temporal adjuncts

In its canonical placement, a temporal adjunct either precedes or follows S/A (7.193-7.195). Since the subject is commonly omitted, in actual use, many temporal adjuncts begin a sentence.

(7.193) *ŋa* ***t^{h}ævæ*** *=ræ* *<jisə>* *nt^{h}je* *dæ-tɕoŋ.*
1SG.ABS **now.ABS**=LNK meaning.ABS hear.INF PFV-AUX.can.PST.1
I managed to understand the meaning now. (RC)

(7.194) ***bəvi*** *=be* *lmæ* *lɔ* *dʑi-ræ.*
this.year.ABS=too 3SG.ABS again EXV.3-SENS
This year, he is (here) again. (RC)

(7.195) ***gædə*** ***<lu>*** ***<tiæn>*** ***<ko>*** ***=ke*** *dæ-rjan,* *æ-ŋuə-ræ.*
morning **six** **o'clock** **after=DAT** PFV-wake.up.1 Q-COP.3-SENS
I woke up after six o'clock in the morning, right? (RN: chronicle)

Locative adjuncts

Locative adjuncts show relative freedom in their placement. The following generalisations are possible. Like a prototypical P argument of transitive verbs, a locative adjunct is placed between S and the predicate verb in the case of intransitive movement verbs (7.196). If the movement verb simultaneously has an infinitive complement optionally including its object (see §4.3.6), this directly precedes the predicate, the locative adjunct being placed to the left (7.197). As discussed in §8.3.3, the behaviour of most movement verbs in Geshiza shows features typical of semi-transitive and extended intransitive clauses in the language.

(7.196) *ŋa* *gædəɣi* ***qa*** *dæ-ɕ^{h}oŋ.*
1SG.ABS early.morning **mountain.ABS** PFV-go.PST.1
I went to the mountain in the early morning. (RN: chronicle)

(7.197) *ə* ***zæk^{h}aŋ=nɔ*** *dzi* *ŋgə* *dæ-ɕ^{h}oŋ.*
HES **restaurant=LOC** food.ABS eat.INF PFV-go.PST.1PL
We went to eat in a restaurant. (RN)

Many other verbs follow similar locative adjunct placement It can also be generalised that if both a temporal and a locative adjunct are present, the former generally precedes the latter (7.191). As discussed above, since the relative order of S/A and a temporal adjunct is not fixed, the S/A argument occurs either clause-initially (7.198) or between the temporal and locative adjuncts (7.199):

(7.198) *<tɕ^{h}i>* *<tiæn>* *<sə-ʂə>=ke* ***bɔvə*** *næ-təu.*
seven o'clock four-ten=DAT **TOPN.ABS** PFV.DIR-reach.PST.1SG
I reached Bawang at seven forty. (RN: chronicle)

(7.199) *q^{h}æs^{h}i* *lŋa=ɲə* ***<ɕ^{h}oɕ^{h}əu>*** ***noŋ*** *<sənrə>* *və=bɔ.*
tomorrow.ABS children=PL.ABS **school.ABS** **in** birthday.ABS LV:do.3=MOD
Tomorrow the children will have a birthday party at school. (RC)

In many contexts other than movement verbs, however, the placement of a locative adjunct relies on its pragmatic function, showing wide variation that cannot be generalised into a single all-encompassing rule. For instance, in (7.200), the locative adjunct introduces the spatial locus of the following discourse, in which case it is introduced in a clause-initial position:

(7.200) ***qa*** *ŋæ=nts^{h}e* *neva* *æpə* *æ-ɣi*
mountain.ABS 1=ASS.GEN relative grandmother one-CLF.person.ABS

ma *dæ-t^{h}je-s^{h}i.*
NEG.EXV PFV-become.PST.3-IFR
An old lady, a relative of ours passed away in the mountains. (RN: chronicle)

Instrumental adjuncts:
The canonical order for instrumental adjunct placement is A INSTR P V (7.201, 7.202):

(7.201) ***nt^{h}u*** ***ɣæ-vs^{h}u-p^{h}a=tɕe*** *<kuakua>* *æ-lə*
fatty.meat **ten-three-CLF.pair=INSTR** guazi.jacket one-CLF.INDEF.ABS

næ-v-rəu. […] *srəmbo=wo* ***ldzə=tɕe*** *dæ-wʈælvæ* *tɕ^{h}a=ræ*
PFV-INV-sew.3 […] ogress=ERG **nail=INSTR** PFV-claw.PST.3 COND=LNK

nt^{h}u *brə-me* *ŋuə-ræ.*
fatty.meat.ABS break.ANTICAUS-NMLZ:S.ABS COP.3-SENS
(As an armor for *æmɲi skældoŋ* against an ogress), they sewed a 'jacket' of thirteen pairs of fatty meat pieces. If the ogress claws (him), the fatty meat pieces would break (and thus offer protection). (RN: folktale; see *Appendix IV: List of prominent figures* for *æmɲi skældoŋ*, a culture hero who saved the Geshiza from an ogress)

(7.202) *<p^{h}əiutsə> =tɕe,* *<p^{h}iəutsə> =tɕe* *lŋa* *lɔ*
money=INSTR **money=INSTR** child.ABS again

nʑæ-p^{h}u.
give.birth-AUX.CAUS.NPST.1SG
I will make money have more children (i.e. I will make my money work for me). (RC)

Adverbial adjuncts:
In Geshiza, adverbial adjuncts that here narrowly refer to adverbs only have two canonical loci. When adverbial adjuncts modify verbs, they always occur in the pre-head position, mostly preceding the verb directly (7.203). If an adverb is also used to modify macro-nominals, it similarly occurs before its head (7.204). In contrast, adverbs that only cooccur with macro-nominals, notably the frequently occurring *mətsʰæ* 'more' and *skæra* 'approximately' and are placed after their heads (7.205):

(7.203) *s^{h}æde* *leska* ***lɔ*** *ɕoŋ.*
day.after.tomorrow.ABS work.ABS **again** go.NPST.1
The day after tomorrow we will go back to work (again). (RC)

(7.204) *ɑ̊næ=ræ* *xaræ* *ts^{h}æqrə-stoldæn* *jə-me* *æ-lə*
past.ABS=LNK CONJ PN-PN say-NMLZ:P one-CLF.INDEF.ABS

dæ-dʑi-s^{h}ə-mə-ræ. *bjola-me,* ***ɑ̊ma*** *gæ-ndʑu*
PFV-EXV.3-IFR-EP-SENS fly-NMLZ:S.ABS **really** ADJZ-extraordinary.ABS

dæ-ŋuə-s^{h}i *ŋuə-ræ=bɔ.*
PFV-COP.3-NMLZ COP.3-SENS=MOD
In the past, there was a person called *ts^{h}æqrə-stoldæn*. He was a flying man, a really extraordinary indeed! (RN: local history; see §2.7.2 concerning the category of *gæ-ndʑu* beings)

(7.205) *tʰævæ* *<pʰiəutsə>* *<kʰrə>* *wsʰu-rjə* ***məʦʰæ*** *ru-ræ.*
now.ABS money yuan three-hundred.ABS **more** find.1SG-SENS
Now I earn more than yuan (daily). (RC)

7.9. Summary

This chapter addressed simple clauses in Geshiza. Clause types in the language are divided into intransitive and transitive clauses at the macro level. Intransitive clauses comprise monovalent intransitive, extended intransitive, semi-transitive, and copular intransitive clauses. Transitive clauses include monotransitive and ditransitive clauses. Verbless clauses are lacking from the basic clause repertoire of Geshiza. The language codes semantic roles with a wide range of phrase-level case enclitics, in addition to agreement and postpositions. Valency modification mostly belongs to historical morphology, but similarly to other languages in the region, the language is rich in existential verbs. Similative, equative, and comparative clauses share structural similarities in Geshiza. Finally, abstracting from the chapter's discussion, word order APV, SV dominates in Geshiza.

CHAPTER EIGHT
Orientation, tense-aspect-mood, and modality

This chapter deals with the manifestation of tense, aspect, mood, and modality (TAM) in Geshiza. It also includes orientation, a grammatical category in the language closely connected to TAM. The same markers frequently express tense, aspect, and mood in the world's languages. Geshiza follows this typological trend, possessing verbal prefixes in which temporal, aspectual, and modal meanings are deeply intertwined. After summarising the TAM and orientation system of Geshiza (§8.1), the discussion moves to orientation (§8.2), aspect (§8.3); tense (§8.4); reality status and mood (§8.5.); and modality (§8.6.). A summary of the main findings is given at the end of the chapter (§8.7).

8.1. Introduction

Most languages in the proposed Qiangic branch of Trans-Himalayan exhibit complex systems of verbal prefixes. These prefixes also play a prominent role in Geshiza grammar. At slot -5 in the verbal template (see §4.3.2), Geshiza has six verbal prefixes essential in determining the exact meaning of a verb. These generally polyfunctional prefixes determine the orientational meaning of the verb and also co-function as TAM markers. As illustrated in Table 8.1, Geshiza river flowing through the Geshiza homeland functions as the spatial reference point in the grammatical category of orientation.

Table 8.1. Summary of the Geshiza orientational prefixes with their aspectual use

Prefixes	Orientation	Aspect
rə-	away from river, upwards	perfective (secondary marker)
næ-	towards the river, downwards	perfective (secondary marker)
wə-	downstream	perfective (secondary marker)
gæ-	upstream	imperfective
dæ-	orientationally neutral	perfective (primary marker)
zə-	orientationally neutral	prospective

The prefixes form an integral part of the Geshiza verbal system. Geshiza verbs vary in their capacity of hosting prefixes. Most verbs appear highly compatible with prefixation in the language. Movement verbs exhibit the most versatile behaviour, many of which can even take all of the six prefixes. Very few verbs, such as the always negated *mə-ske* (NEG-V1b) 'should

not' do not take any such prefixes. According to Jacques et al. (2014: 91), Khang.sgar Stau has at least three verbs incompatible with the prefixes: *vdɔ* 'to see'; *ste* 'to finish'; *si* 'to know'. The cognates of these verbs in Geshiza, however, appear prefixed and exhibit no deviating behaviour vis-à-vis other verbs.

Of the prefixes, *gæ-* and *dæ-* are currently undergoing phonetic erosion in which some speakers alternate between two forms: *gæ- ~ æ-*; *dæ- ~ æ-*. For instance, *gæ-stɕʰəkʰen* versus *æ-stɕʰəkʰen* 'I am watching you'. Nevertheless, the full forms still by far outnumber the eroded form in actual use and are considered standard. Seen in a comparative light, prefixal erosion has happened in other Horpa lects, notably in the Jiaju Sancun dialect of Bawang Horpa (own fieldwork data, 2017).

Comrie (1976: 3) defines aspect as 'different ways of viewing the internal temporal constituency of a situation.' In Geshiza, aspect exhibits partial overlap with orientation, since the historical orientational prefixes have evolved aspectual functions in Geshiza. The language includes primary and secondary aspects that are distinguished both by frequency and morphosyntactic behaviour. Primary aspects frequently occur in everyday language and are expressed through a single marker only. In contrast, secondary aspects are less frequent and formally complex, frequently allowing multiple aspect marking simultaneously. Aspectual categories of Geshiza are summarised in Table 8.2:

Table 8.2. Overview of aspect and its expression in Geshiza

Grouping	Aspect	Marker	Examples (without evidential marking)
Primary aspects	perfective	*dæ-*	*mə* (V1b) 'to be cooked ready' *dæ-mə* 'It got cooked ready.'
	imperfective	*gæ-*	*qʰæqʰæ* (V2b) 'to laugh' *gæ-qæqæ* 'S/he was laughing.'
	prospective	*zə-*	*bre* (V2b) 'to be time for something' *zə-bre* 'Time for X is going to arrive.'
Secondary aspects	continuative	*jæ-*	*ndzo* (V2b) 'to sit, stay' *jæ-ndzo* 'S/he is staying sitting.'
	cumulative	*gægæ-*	*n-tɕʰæ* (AB-V2b) 'to grow up, increase' *gægæ-gə-ntʰɕæ* 'S/he is growing bigger and bigger.'
	exp. perfect	PFV + *zda*	*ɕə* (V2b) 'to go' *dæ-ɕʰoŋ zda* 'I/we have gone to X.'
	completive	*stʰæ*	*mtsʰə* (V3b) 'to paint' *mtsʰə dæ-stəu* 'I have finished painting.'
	semelfactive	*æ-*INF *v-ra*	*rtɕʰæ* (V3b) 'to bite' *æ-rtɕʰæ gæ-v-ra* 'S/he/it bit once'

In contrast to complex aspectual distinctions, Geshiza has a binary tense system that distinguishes only past and non-past tenses. Overt marking of tense is only possible for verbs that participate in aspiration alternation (see §4.3.5.3), namely for verbs that have stem consonants with aspirated and non-aspirated counterparts in Geshiza phonology: e.g. *stʰæ* 'to finish' (NPST) versus *stæ* 'to finish' (PST). Other verbs, such as *v-ɾæ* 'to write' are always tenseless, their temporal interpretation being dependent on aspect and discourse context. Since the perfective and imperfective require a past tense, while the prospective always co-occurs with the prospective aspect, the categories of tense and aspect are deeply interwoven in Geshiza.

Indicative, nonfactual, and interrogative moods in Geshiza take standard negation §11.2.1) while imperative and optative moods require the dedicated negative prefix *-di- ~ -dʑi-* (see §11.2.3). On the basis of this distributional difference, the formal are categorised as realis and the latter irrealis. Mood is encoded by vocalic prefixes that fuse with verbal prefixes, illustrated in Table 8.3 below. The general imperative lacks a dedicated prefix, instead availing of the default verbal prefixes also present in the indicative, yet requiring the irrealis negator for forming prohibitives (i.e. negative imperatives; see §10.2.4). The indicative row on the left shows the default forms of the polyfunctional prefixes.

Finally, modality has multifaceted manifestations in Geshiza with no clear paradigms. Some of the manifestations, such as the dubitative, have become grammaticalised. Others, such as modal auxiliaries, are lexical. Table 8.4. summarises modality in Geshiza.

Table 8.3. Reality status and mood categories with dedicated prefixation in Geshiza

Realis			Irrealis	
Indicative	Non-actual	Interrogative	Imperative	Optative
rə-	*r-ə*	*r-i-*	*rə-*	*r-i-*
næ-	*n-ə-*	*n-i-*	*næ-*	*n-i-*
wə-	*w-ə-*	*w-i-*	*wə-*	*w-i-*
gæ-	*g-ə-*	*g-i-*	*gæ-*	*g-i-*
dæ-	*d-ə-*	*d-i-*	*dæ-*	*d-i-*
zə-	n/a	*z-i-*	n/a	n/a

Table 8.4. Grammatical and lexical mood in Geshiza

Category	Mood	Example
Grammatical	potential suffix	*-ɣa* 'potential suffix'
	necessitative construction	V-*ʑæ ŋuə* 'must V'
Lexical	modal auxiliaries	*vɕe* 'must' (deontic necessity)
	modal discourse enclitics	*=mdɔ* 'uncertainty enclitic'
	modal adverbs	*æmæ* 'maybe' (epistemic possibility)

8.2. Orientation

Orientation is a grammatical category in Geshiza that is expressed through verbal prefixation. This section gives an overview of the Geshiza orientation system (§8.2.1), followed by a discussion on concrete use and metaphorical extensions of orientation (§8.2.2).

8.2.1. Geshiza orientation system

Geshiza verbal prefixes include four prefixes, *rə-, næ-, wə-,* and *gæ-,* used for indicating direction, either in a concrete or abstract manner. The grammatical category reflects the geographical environment of the language (see also §2.1.1 on the geographical context of Geshiza). In Trans-Himalayan studies, the suffixes have been termed 'directional' or a close synonym (e.g. Daudey 2014 on Wadu Pumi, Lai 2017 on Wobzi Khroskyabs, LaPolla 2003 on Qiang). Unfortunately, the term 'direction(ality)' invokes confusion, since 'direction' is conventionally also used in direct-inverse systems (see §7.2.4). Consequently, the term 'orientation' has been adopted here for grammaticalised topography-based spatial deixis.

In Geshiza, the orientational prefixes possibly originate from lexemes with orientational meanings (Duo'erji 1997: 70). The Geshiza homeland consists primarily of mountains and a valley with a river, which creates an environment where expressing the direction of locomotion and action is pragmatically meaningful. These expressions that occurred frequently with verbs were grammaticalised and incorporated into a part of the verbal system. In contemporary Geshiza, directional adverbs show a striking resemblance to the orientational prefixes and might have served as the origin for the grammaticalised prefixes (§13.2.1). Alternatively, both the directional adverbs and prefixes originate from a third, shared source. In any case, directional adverbs and verb forms with orientational prefixes must harmonise with each other, that is, express the same direction. For instance, *wəro* 'downstream directional adverb' requires the downstream directional *wə-* and *gæro* 'upstream directional adverb' requires the upstream orientational *gæ-* for the predicate verb (8.1; see also §13.2.1 for the complete picture of spatial deixis involving the prefixes):

(8.1)

'ɲi	*rji=wo*	*xazi-ba*	***wə-ro***
2SG.GEN	horse=ERG	how.many-CLF.step	**DIR-ADV**

xazi-ba	***wə-****v-tɕə*	***gæ-ro***
how.many-CLF.step	**PST.DIR-**INV-take.steps.PST.3	**DIR-ADV**

xazi-ba	***gæ-****v-tɕə'*
how.many-CLF.step	**PST.DIR-**INV-take.steps.PST.3

'How many steps did your horses take downstream and how many steps did they take upstream?' (RN: folktale)

Parameters of orientation

Superficially speaking, the prefixes *rə-, næ-, wə-,* and *gæ-* seem to constitute an absolute locational system based on cardinal directions: *rə-* 'northwards; *næ-* 'southwards'; *wə-* 'eastwards'; *gæ-* 'westwards'. Eastern Geshiza Valley lies almost along east-west-axis, a river flowing at the bottom from west towards east (see §2.2.1, Figure 2.1. *Geshiza Valley*). Since the natural environment coincides with the cardinal directions, it is easy to draw the conclusion that Geshiza uses an absolute orientational system based on these cardinal directions.

The absolute orientational model is nevertheless incorrect. A more exact model postulates that Geshiza orientational system depends on one main factor only, namely Geshiza River, which creates an illusion of an absolute locational system. Geshiza River and the surrounding mountains are the omnipresent landmark of Geshiza homeland. Almost universally, the land rises the more one moves away from the river that flows at the bottom of the Valley. Consequently, movement away from the river equals climbing uphill, and movement towards the riverbank necessarily happens downhill.

Reconfiguring the orientational paradigm, the four prefixes are interpreted to indicate movement with two parameters, namely movement that is prototypically either parallel with or perpendicular to the river. This forms a biaxial model, in which *wə-* ↔ *gæ-* is the x-axis parallel to Geshiza river and *næ-* ↔ *rə-* the y-axis perpendicular to the river, described in Figure 8.1 below. It should be noted that the river has two inhabited banks that are indicated in the graph as the positive and negative side of the y-axis, respectively.

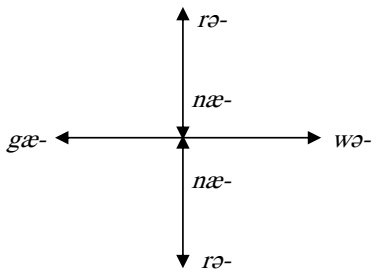


Figure 8.1. Biaxial model of orientation in Geshiza

Parallel with the river, *wə-* encodes movement towards downstream (8.2), in contrast to *gæ-* that expresses movement upstream (8.3). Perpendicular to the river, *næ-* indicates direction towards the river (8.4), while *rə-* indicates the opposite orientation away from it (8.5). In the examples on the following page, the prefixes simultaneously express perfective aspect, a phenomenon discussed in §8.3.1.

In practical terms, since movement towards the river coincides with descending, and movement away from it is only possibly by ascending, by extension, *næ-* also indicates downward and *rə-* upward movement. Figure 8.2 on the following page illustrates the manifestation of these two variables in Geshiza homeland in real terrain around Buke Village.

(8.2) Parallel: movement downstream with *wə-:*

braŋgu=je	*mts^{h}ə~mts^{h}æ-me*	*ɕ^{h}i*	***wə-ɕ^{h}oŋ.***
TOPN=GEN	paint.RED.NMLZ:ACT-SUFF	pick.up.INF	**PFV.DIR**-go.PST.1

I went to Danba County Town to pick up the painters. (RN: chronicle)

(8.3) Parallel: movement upstream with *gæ-:*

tɕ^{h}u	*mdzo-ɲo*	*<sæn>*	*<tiæn>=ke=ræ*	*watɕo*	***gæ-ɕ^{h}oŋ.***
CONJ	noon-after	three	o'clock=DAT=LNK	TOPN	**PFV.DIR**-go.PST.1

So at three o'clock in the afternoon, I went to Wazu. (RN: chronicle)

(8.4) Perpendicular: movement towards the river and movement downwards with *næ-:*

məsni	*gædə*	*væ-zi*	*v-qe*	***næ-ɕ^{h}oŋ.***
today	morning	pig.CS-DIM	take.with.INF	**PFV.DIR**-go.PST.1

I went to fetch piglets (from a place closer to the River) this morning. (RN: chronicle)

(8.5) Perpendicular: movement away from the river and movement upwards with *rə-:*

xe	*ɲo*	*ŋa*	*jæɣuə*	***rə-ɕ^{h}oŋ.***
DEM.GEN	AFTER	1SG	rooftop	**PFV.DIR**-go.PST.1

Then I went to the rooftop. (RN: chronicle)

Figure 8.2. The use of orientational prefixes around Buke Village

On the following page, Figure 8.3 summarises the marking of orientation in Eastern Geshiza Valley at a more abstract level, the river shape marked by a grey line:

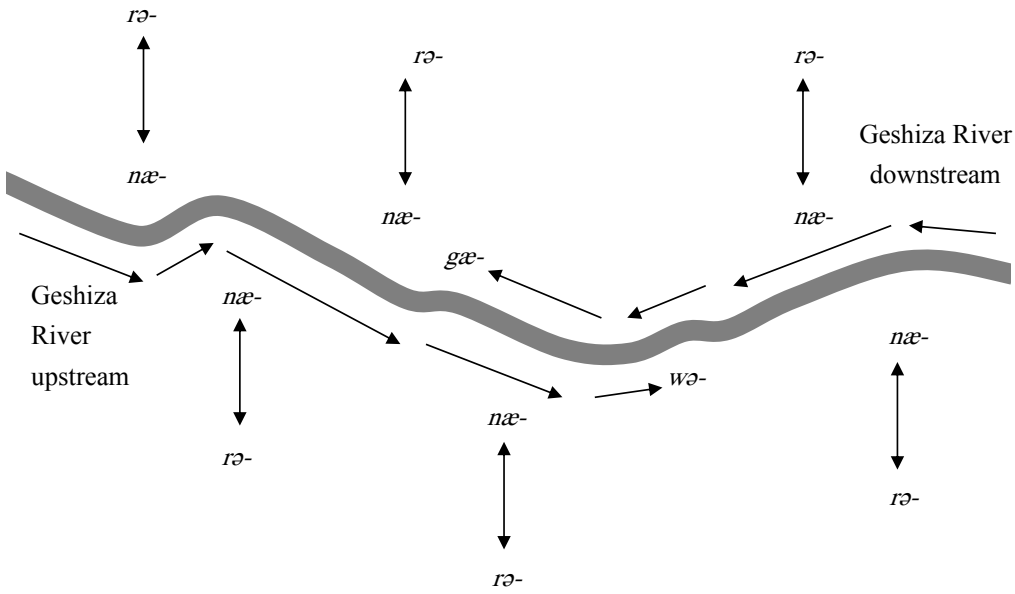


Figure 8.3. Orientational prefixes in eastern Geshiza Valley

The spatial deictic model based on the river presents itself with more explanatory power vis-à-vis the cardinal direction model. To begin with, some types of orientational movement can be encoded in two different ways. In examples (8.6) and (8.7), the speaker describes his movement from Balang Village to Dazhai Village in the Geshiza Valley, both villages being located on the southern bank of the river. Of the two, Balang lies closer to the river and Dazhai further away at a higher altitude.

(8.6) < *taʈʂɛ* > ***rə***-*van.*
TOPN **DIR**-go.SUPL.1
I will go up to Dazhai. (MEE)

(8.7) < *taʈʂɛ* > ***gæ***-*van.*
TOPN **DIR**-go.SUPL.1
I go upriver to Dazhai. (MEE)

With absolute cardinal directions, such dual encodings of movement cannot occur. The examples above, however, represent two different spatio-directional interpretations between the origin, Balang Village (B), and the goal, Dazhai Village (T). To understand the issue and the core of orientation in Geshiza, we must thus conceptualise movement as a vector indicating the source (B) and goal (T), being interpretable only through the reference point of Geshiza river (GR), shown in Figure 8.4. In (8.6), the movement is conceptualised along y-axis (*næ-* ↔ *rə-*) as movement further away from the river, the goal point also being at a higher altitude than

Balang. In contrast, (8.7) uses x-axis (*wə-* ↔ *gæ-*) and construes the movement as further towards the upstream seen from Balang. Importantly, both encodings only apply one directional parameter and one directional prefix at a time.

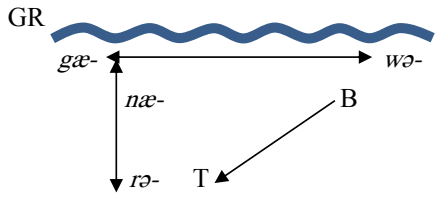


Figure 8.4. Alternative encodings of direction in examples (8.6, 8.7)

The river-based model has a further benefit in contrast to that of the cardinal directions. While the absolute model works relatively well in the immediate environment of the Geshiza speakers, it fails to explain the encoding of distant directional movement. In long-distance movement, *wə-* ↔ *gæ-* axis is all but absent, *næ-* ↔ *rə-* being the only occurring prefixes. For instance, in terms of absolute direction, Tibet lies west from the Geshiza homeland, but a trip there is encoded with the orientational *rə-*, and not with *gæ-* (8.8). Similarly, a trip to Beijing north-east from the Geshiza homeland appears with the orientational *næ-* (8.9). The Geshiza often have a general sense that Beijing or Chengdu lie at a lower altitude, while Tibet generally has higher altitudes than the Geshiza homeland. In sum, in distant movement, relative altitude constitutes the only important factor for encoding direction. Since the *wə-* ↔ *gæ-* axis is tied to the flowing direction of Geshiza River and the connecting riverine system (see §13.2.1), it becomes obsolete in encoding movement to places distant from the local river system.

(8.8) *ɕʰæsa* ***rə-****van.*
TOPN **DIR**-go.SUPPL.1
I will go (up) to Tibet. (MEE)

(8.9) *<betɕin>* *æ-lə* ***næ-****van.*
TOPN one-CLF.INDEF **DIR**-go.SUPPL.1
I will go (down) to Beijing once. (MEE)

Finally, when orientational knowledge is lacking, the system cannot be applied. For instance, in (8.10.) the consultant declined to adjoin an orientational prefix to the verb *ɕoŋ* 'I go', since he does not know the spatial relationships between the Geshiza homeland and Japan mostly familiar only through television series, including the relative altitudinal difference between the two:

(8.10) *<rəpən>* *æ-li* ***ɕoŋ.***
Japan one-CLF.time **go.NPST.1**
I will go to Japan. (MEE)

Multidirectionality and lack of consistency in movement

Two verbs with orientational prefixes of opposite semantics from the x or y-axis of the model introduced above, namely either *wə-* ↔ *gæ-* or *næ-* ↔ *rə-*, can be used together with the light verb *və* 'to do' (see §4.3.7.1) to indicate multidirectionality and lack of consistency at the direction movement, like the English 'here and there; hither and thither; up and down' (8.11, 8.12). The prefixed verbs must appear in the infinitive, which disallows the inverse prefix *v-*.

(8.11) *wlæmbæ* *lməu* ***gæ-qe*** ***wə-qe*** ***və=gæ.***
strong.wind 3SG.ERG **DIR-lead.INF** **DIR-lead.INF** **LV:do.3**=DIR
Strong wind blows the clouds hither and thither. (RN: folktale)

(8.12) ***rə-rʑu*** ***næ-rʑdu*** ***rə-rʑu*** ***næ-rʑdu*** ***g-ə-vu.***
DIR-drive.INF **DIR-drive.INF** **DIR-drive.INF** **DIR-drive.INF** **PREF-NACT-LV:do.1SG**
I drive here and there (i.e. up and down in mountainous terrain in my job as a taxi driver). (RN: chronicle; see §2.5.3 about the high popularity of taxi driving jobs)

Typically, the pair *wə-* ↔ *gæ-* indicates haphazard movement along the horizontal plane while the pair *næ-* ↔ *rə-* is used for the vertical axis, but all that has been discussed previously concerning the orientational prefixes applies here as well. For instance, since trips to and from Chengdu, the regional centre at a geographically lower altitude, are encoded with the pair *næ-* ↔ *rə-*, repetition of such trips must be formulated as *rə-ve næ-ve və* (DUR-go.SUPPL.3 DIR-go.SUPPL.3 do.3).

8.2.2. Concrete use and metaphorical extensions of orientation

Orientation as a paradigmatic grammatical category has semantic restrictions. Borrowing the terminology of Jacques (2019b: §8.1.2), movement, manipulation, and orientation verbs are compatible with orientation in a non-metaphorical sense (8.13). Intransitive movement verbs express spatial change in the location of the subject. Transitive manipulation verbs, such as putting and taking, involve a subject that causes a change in the location of the object. Orienting verbs involve physical orientation towards a certain direction.

(8.13) movement verbs: *ɕə* (V2b) 'to go'; *ʑæ* ~ *ʑe* (V2b) 'to come'
manipulation verbs: *mbe* (V4) 'to carry'; *nʑæ* (V4) 'to bring'
orientation verb: *stɕ^{h}ək^{h}i* (V4) 'to look, watch'

In addition, however, many Geshiza verbs appear with fixed prefixes and allow no paradigmatic variation. For instance, *vɕæ* (V3b) 'to speak' allows the use of the prefix *næ-*, but not its counterpart *rə-*. Such fixed non-paradigmatic prefixation is referred to as conventional prefixing here.

Many instances of conventional prefixing originate as metaphorical extensions of orientation. Orientational prefixes are an ancient feature in languages of the proposed Qiangic branch, which provides an ample time frame for such evolution. In Geshiza, conventional prefixing especially concerns the 'y-axis' prefixes *rə-* and *næ-*, 'away from the river stream, up' and 'towards the river stream, down', respectively. Their meanings 'up' and 'down' have extended widely on the basis of conceptual metaphors, also known as cognitive metaphors. The concept was widely popularised by Lakoff and Johnson (1980), and is defined as a cognitive mechanism for understanding a conceptual domain in terms of another conceptual domain. Cognitive metaphors are conventionally written in an equational form X = Y, such as LIFE = JOURNEY, exemplified in: 'He found a new direction in life'. In sum, conventional prefixing in Geshiza avails of the human cognitive universal of metaphorical mapping across domains.

Many verbs with conventional prefixation require little explanation, since the use of the orientational prefix is obvious with little metaphorical extension. The verb *lŋæ* (V3b) 'to pour, discard (liquids, such as dirty water)' occurs with the prefix *næ-*, since liquids flow down naturally because of gravity. Also, *v-tɕʰə* (V4) 'to lift up' co-occurs with the prefix *rə-*, since lifting by default implies an upward movement.

Metaphorical use extends this spatial function of the prefixes. To illustrate the metaphorical use of Geshiza orientaional prefixes, the orientational conceptual metaphor MORE is UP lies behind the use of *rə-* in *mpʰæl* (V1b) 'to increase' and *n-tɕʰæ* (AB-V2b) 'to grow', while LESS is DOWN explains the use or *næ-* with the verb *ɴqʰi* (V2b) 'to be(come) thin'. Some conventional prefixation, however, is less opaque. A dedicated study including a historical-comparative element is thus needed to fully understand the development of metaphorical extension in Geshiza verbal prefixes. Conventional prefixation with *næ-* and *rə-* is illustrated in Table 8.5 on the following page, followed by examples (8.14-8.17):

Table 8.5. Verbs conventionally prefixed with *næ-* and *rə-*

Prefix	Examples	Gloss
næ- (concrete, 8.14)	*bəu* (V2b)	to get down, off (e.g. from a car)
	lŋæ (V3b)	to pour (e.g. water into the sewer)
	v-tɕi (V3b)	to ride (e.g. a horse)
næ- (abstract, 8.15)	*vɕæ* (V3b)	to speak, tell
	ɴq^{h}i (V2b)	to be(come) thin
	ʐji (V4)	to teach
rə- (concrete, 8.16)	*v-ɣa* (V3b)	to lift up (lids of containers)
	sti (V3b)	to put, place (on something)
	v-tɕ^{h}ə (V4)	to lift up (objects)
rə- (abstract, 8.17)	*ʂ̱su* (V4)	to bring up, take care of (children)
	mp^{h}æ1 (V1b)	to increase
	vtsu (V3b)	to establish, found

(8.14) Down (concrete): *næ-:*

tɕ^{h}u	*rdʐæ=ɲə*	***næ**-bəu.*
CONJ	Chinese=PL	**PFV.DIR**-get.off.3

The Chinese got off (from the car). (RN)

(8.15) Down (abstract): *næ-:*

jovæ	*æ-vtɕa=je=ræ*	*lŋa*	*æ-lə*	***næ**-stɕe-s^{h}i,*
couple	one-CLF.pair=GEN=LNK	baby	one-CLF.INDEF	**PFV.DIR**-be.born.PST.3

bəʐə	*æ-lə.*
boy	one-CLF.INDEF

A baby was born to a couple, a boy. (RN: folktale)

(8.16) Up (concrete): *rə-:*

t^{h}ə	*wək^{h}uə*	*næ-mbe*	***rə**-st^{h}i-s^{h}ə-mə-ræ.*
DEM	river.side.of.tripod	PFV-carry.3	**PFV.DIR-**place.PST.3-IFR-EP-SENS

He carried that (into the house) and put it on the river side of the tripod. (RN: folktale)

(8.17) Up (abstract): *rə-:*

pæma-mdʐone=wo=ræ	*bændi*	***rə**-vts^{h}u-s^{h}i*
PN-PN=ERG=LNK	Buddhism	**PFV.DIR**-found.PST.3-NMLZ

ŋuə-mə-ræ-jə.
COP.3-EP-SENS-REP
It is said that Padmasambhava founded (Tibetan) Buddhism. (RN: folktale; see §15.4 and *Appendix IV: List of prominent figures* for Padmasambhava.)

Conventional prefixation and arrow of time

The arrow of time in English is horizontal: future is behind the deictic centre that is facing the future (Lakoff and Johnson 1980). This can be illustrated with a constructed example: 'We have left the difficulties behind, and now only joy lies ahead of us.' Time has different metaphorical orientation in Geshiza. The Geshiza conceptualised time along the vertical axis where the arrow of time points upwards. As a result, metaphorical movement in time towards the future triggers the use of the prefix upward *rə-* (8.18). Identical behaviour is also attested in a set of prefixed adverbs where the prefix *rə-* must be employed when discussing time flowing towards the future (8.19):

(8.18) *wərwər* ***rə-****rje-ræ=bɔ.*
IDEO **DIR**-go.3-SENS=MOD
(Time) goes fast! (RC)

(8.19) *<wu-jye>* ***rə-****ŋk^{h}uæ=k^{h}a* *nts^{h}ælma* *skəu* *tɔ.*
five-month **DIR**-ADV=about dream more become.true.NPST
From approximately May onwards, dreams (that we see while sleeping) tend to become true (in real life). (RN: ethnographic description)

Exceptional cases

While the analysis above outlines the extensions of orientational prefixation in Geshiza, non-spatial use of the remaining prefixes *wə-* and *gæ-* is rarer, opaque, and in cases subject to interspeaker variation. At least at the present stage of Horpa research, it must be seen as conventional. Notably, the prefix *wə-* appears together with verbs *ndzo* (V2b) 'to sit, stay'; *v-t^{h}i* (V3b) 'to drink'; *sŋi* (V4) 'to lend'; and occasionally with *ŋgə* (V4) 'to eat' in the general imperative (see §10.2.2), but rarely in the perfective context. In turn, the verb *v-rə* (V3b) 'to buy' appears conventionally with the prefix *gæ-* in most prefixed instances discussed in §8.3.2.

8.3. Aspect

This section discusses the manifestation of aspect in Geshiza, a central grammatical category in the language. The language has eight aspectual categories: perfective (§8.3.1); imperfective (§8.3.2); prospective (§8.3.3); continuative (§8.3.4); cumulative (§8.3.5); experiential perfect (§8.3.6); and completive (§8.3.7); and semelfactive (§8.3.8).

The three primary aspects, namely the perfective, imperfective, and prospective, are expressed by single morphological markers in the form of prefixes. In contrast, the remaining secondary aspects require an auxiliary verb and/or frequently exhibit multiple aspectual marking. In multiple aspectual marking, the primary aspect markers set the frame for the secondary aspect markers, which further underlies their hierarchical primacy. For instance, the experiential perfect formed by means of an auxiliary always requires the main verb in the perfective aspect, the perfective setting a perfective frame further modified by the addition of the auxiliary adding the experiential dimension.

We can posit orientation as the original semantics for many of the Geshiza verbal prefixes that have subsequently acquired other functions, such as marking aspect. This is especially clear with the prefixes *rə-, næ-, wə-, gæ-*.The historical evolution in Geshiza can thus be seen in a broader cross-linguistic light: developmental path from directional adverbs into aspectual markers via orientational affixes is also attested in other languages, such as Navajo and Kawaiisu (Mithun 2003: 181).

8.3.1. Perfective

Geshiza has a perfective aspect primarily marked with the verbal prefix *dæ-* (glossing: PFV) that has no orientational meaning, obligatorily attaching to the past stem a verb, if such stem is available (8.20, 8.21). The obligatory cooccurrence of the perfective with the past stem can be collectively called the aorist. The perfective conceptualises an event as bounded and conforms to Comrie's (1976: 4) generalisation of perfectives, namely looking 'at the situation from outside, without necessarily distinguishing any of the internal structure of the situation.'

(8.20) *rjəu=ke=nɔ* ***dæ****-bædzo-s^{h}i.*
wife=DAT=TOP.C **PFV**-divorce.3-IFR
He got divorced from his wife. (RC)

(8.21) *<taʈʂɛ> -væ=dʐe* *æ-ɣi* ***dæ****-sæ-s^{h}i.*
TOPN-NAT=TOP one-CLF.person **PFV**-die.PST.3-IFR
A person from Dazhai village had died. (RN: chronicle)

The standard perfective prefix *dæ-* is replaceable under two conditions. First, with verbs of movement, the perfective frequently includes an orientational prefix that indicates the actual direction of the action instead of the orientationally neutral *dæ-* that can still be used. In these instances, the prefixes serve a multifunctional purpose to indicate both orientation and aspect at the same time. To illustrate, (8.22) expresses perfective action, but additionally, it also encodes orientational information by indicating that the speaker moved downriver. In this context, the use of *dæ-* is equally completely natural, but conveys less information (8.23).

(8.22) *gadə* *gadəɣi* *braŋgu* ***wə-ɕʰoŋ.***
morning early.morning TOPN **PFV.DIR-**go.PST.1
I went (downriver) to Danba County Town early morning. (RN)

(8.23) *gadə* *gadəɣi* *braŋgu* ***dæ-ɕʰoŋ.***
morning early.morning TOPN **PFV-**go.PST.1
I went (downriver) to Danba County Town early morning. (ACC; see 8.22)

Also, as discussed §8.2.2., many Geshiza verbs have conventional prefixes. These prefixes may be used in the perfective instead of *dæ-*. In (8.24), the verb *ŋgə* (V4) 'to eat' occurs with the standard perfective prefix *dæ-*, while (8.25) uses its conventional prefix *næ-*.

(8.24) *jæɣuə* *qʰælo=ɲə* ***dæ-ŋgoŋ.***
rooftop walnut=PL **PFV-**eat.1PL
We ate walnuts on the rooftop. (RN: chronicle)

(8.25) *ə* *ŋa=tʰə* *vədə* *dzi=ɲə* *sʰo* *æ-ntsʰæ* ***næ-ŋgu.***
HES 1SG=TOP down food=PL more one-CLF.little.bit **PFV-**eat.1SG
As for me, I ate a bit more downstairs. (RN: chronicle)

Inchoative function with stative verbs

When used with stative verbs of classes 1a and 2a, the perfective describes an inchoation or ingression of an event. Since typically, the inchoation describes a change of state or an onset of a new state, it is by nature dynamic, thus allowing a dynamic use of the stative verbs (8.26). An ingressive or inchoative function is reported for the perfective typologically, particularly with stative verbs (Comrie 1976: 19). Additionally, few non-stative verbs that can be characterised as state verbs by their Aktionsart (lexical aspect) behave identically: *v-se* (V4) 'to know' > *dæ-v-sʰe* 'to come to know' (c.f. Shirai (2018: 414-416) offering an identical description of *hsɨ1* 'to know' in the Qiangic nDrapa that like to adjectives in the language changes into a change-of state verb when an orientational prefix is attached).

(8.26) ***næ-****ɴqi-sʰi.*
PFV.DIR-thin.PST.3-IFR
He got thin. (OU)

In Geshiza, the inchoative perfects of stative verbs may contain an additional nuance of excess (8.27):

(8.27) *mbrɛ* *noŋ* *wrə* ***dæ-****wre-s^{h}i=bɔ.*
rice in water **PFV**-be.much-IFR=MOD
The rice became too soggy. (lit. Water became much inside the rice.) (OU)

8.3.2. Imperfective

In Geshiza, the prefix *gæ-* (glossing: IPFV) encodes the imperfective aspect and attaches to the past stem of a verb, if disponible (8.28, 8.29). Contrasting with the perfective expressed with several verbal prefixes, the imperfective is always exclusively restricted to the prefix *gæ-* only, allowing no prefixal variation. Geshiza imperfective conforms to Comrie's (1976: 4) generalisation: 'the imperfective looks at the situation from inside, and as such is crucially concerned with the internal structure of the situation.'

(8.28) *məsni* *mæ* ***gæ-****ʑe-s^{h}i.*
today rain **IPFV**-come.3-IFR
It is raining today. (RN: chronicle)

(8.29) *<ʈʂ^{h}etsə>* *wæts^{h}e* ***gæ-****lju.*
car lot **IPFV**-wait.1SG
I have been waiting for a long time for a car. (RN: chronicle)

Despite requiring the past stem of a verb and being in many cases in a past context, not all instances of the imperfective can be interpreted in a past time frame. In (8.30), a couple is discussing their daughter turning four on the following day, yet imperfect with a past stem of the verb is used. This is likely because the grammatical architecture of Geshiza lacks any means for combining the non-past tense with the imperfective, resulting in semantic extension in the past-tense cum imperfective aspect combination to cover the gap.

(8.30) *<ʂətɕæn>* *mdʑɔ-tæn-ræ=bɔ.* *q^{h}æs^{h}i* *tɕ^{h}u* *nærdʑa-ɕ^{h}æmu*
time fast-AUX.INT-SENS=MOD tomorrow CONJ PN-PN

wʑæ-ko *gæ-t^{h}je* *tɕ^{h}u.* ·
four-CLF.year **IPFV**-become.PST.3 CONJ
Time goes so fast! Tomorrow *nærdʑa-ɕ^{h}æmu* is turning four. (speaker A)

ŋuə-ræ=bɔ. *wʑæ-ko* ***gæ-****t^{h}je,* *æ-ŋuə-ræ.*
COP.3-SENS=MOD four-CLF.year **IPFV**-become.PST.3 Q-COP.3-SENS
Indeed! She is turning four, right. (speaker B) (RC)

In two verbs the difference between the perfective and imperfective prefixes is used for semantic differentiation, rather than for encoding aspect. The verb *v-rə* (V3b) 'to buy' appears only with the prefix *gæ-* in the source materials, even in instances that must be semantically seen as perfective forms. In contrast, the verb *v-ri* (V4) 'to find' is used with the prefix *dæ-*. The fixed distribution arises from the need to disambiguate the two verbs. Illustrated in Table 8.6, first person singular and second person forms of the two verbs are potentially ambiguous. Consequently, in addition to the discourse context, the choice between the two prefixes narrows down the referent of the verb form. The prefix *gæ-* is thus exceptionally glossed as perfective in the context of *v-rə* 'to buy', since most instances of purchase are perfective by nature.

Also, the verb *dʑə* (V2b) 'to meet' always takes the prefix *gæ-*, which in this context must be seen as conventional use, rather than a marker of the imperfective aspect. The conventional pairing of *dʑə* with a prefix *gə-* also attested in Stau. In all, sometimes the selection of *gæ-* in Geshiza is conventional, rather than aspectual (see §8.2.2. for conventional prefixation).

Table 8.6. Paradigms for the verbs *v-rə* (V3b) 'to buy' and *v-ri* (V4) 'to find'

Person	to buy	to find
1SG	***ru***	***ru***
2PL	*roŋ*	*ran*
2SG	***ri***	***ri***
2PL	***ren***	***ren***
3	*v-rə*	*v-ri*

Unlike in the case of the orientationally neutral perfective prefix *dæ-*, the orientational prefixes can never replace the dedicated imperfective prefix *gæ-*. From this limitation, it follows that orientation does not cooccur with the imperfective aspect.

8.3.3. Prospective

Geshiza has a prospective aspect marked by marked by the verbal prefix *zə-* (glossing PROSP; 8.31-8.33). The function of the aspect is captured by Comrie's (1989:64 typological definition, namely a 'present state relative to some future event.' Based on recorded conversations, in comparison to the perfective and imperfective aspect markers, the prospective aspect marker appears with a lower frequency. In their daily conversation, people tend to discuss the past and events that have recently taken place rather than those that are or were about to take place. Finally, *zə-* is possibly related to the Wobzi Khroskyabs conditional *zɜ̂-* (Lai 2017:470-471).

(8.31) *ŋkʰæva* ***zə-ʑe=mɔ.***
snow **PROSP**-come.3=MOD
It is going to snow. (OU)

(8.32) *bəʑə=læ* *rjɛ-ko* ***zə-****tje.*
son=FOC eight-CLF.year **PROSP**-become.NPST.3
(Our) son is about to become eight. (RC)

(8.33) *losær* ***zə-****bre* *tɕʰa=ræ* *tsʰə-pʰru* *d-ə-loŋ.*
New.Near **PROSP**-arrive when=LNK dirt-white PREF-NACT-LV:release.1PL
At the time when the New Year is approaching, we apply white dirt (to our houses). (RN; see §2.4.1. *Tibetan New Year and smon lam Prayer Festival* concerning the custom of repainting the houses before the Tibetan New Year)

The prospective aspect is distinct from future tense. In (8.34), the speaker realises that in the imminent past, he was about to forget to give the pigs their daily food. The act of forgetting is thus not projected into the future, but into the imminent past. The use of the prospective in context interpretable as past from the discourse yields the meaning 'almost':

(8.34) *va-dzi* *kʰo* ***zə-****lmu-ræ=bɔ.*
pig-food give.INF **PROSP**-forget.1SG-SENS=MOD
I almost forgot to give (the pigs) the pig food! (UA)

8.3.4. Continuative

Geshiza continuative aspect marked by the prefix *jæ-* (glossing: CONT) prototypically expresses the unaltered continuation of a state. In this grammar, the aspect is termed continuative, rather than progressive, to emphasise the continuative nature of a state or action that may lack a dynamic quality. The continuative aspect prefix *jæ-* occurs together with the non-past tense and also optionally together with the imperfective marked with the prefix *gæ-*, in which case it forms a complex aspect.

In (8.35), the speaker comments on his young son who detests sitting still at one place. In (8.36), a mother comments on her son adult son who still has not come home from a party. As illustrated in (8.37), the continuative frequently co-occurs with the expression *tʰævæ=be* 'still', literally 'now=also' that emphasises the continuity of the action or state.

(8.35) ***jæ-****ndzo* *mə-tɕʰa-ræ.*
CNT-sit.3.INF MOD.NEG-AUX.can.NPST.3-SENS
He cannot sit still. (UA)

(8.36) *dærdʑe=be* *mɛ-ʑe.* *jovə* ***jæ-****dʑi-ræ* *tɕʰu.*
PN=too ASP.NEG-come.3 medial.riverside.LOC **CONT**-EXV.3-SENS CONJ
dærdʑe has not come back either. He is still (in the party of the place that is located) on the river side seen from the house. (UA)

(8.37) *tʰævæ=be* ***jæ-****və-ræ=jɔ.*
now=too **CONT**-LV:do.3-SENS=Q
Is (s)he still doing it? (OU)

The continuative prefix is loosely attached to its host. For instance, discourse marking, such as the restrictive intensifier *=zɔ* 'only' attaches between the prefix and the verb, including its primary prefixes (8.38, 8.39):

(8.38) ***jæ****=zɔ* *wə-ndzon-ræ* *məka* *tɕʰæ-ʑæ* *ma-rɔ.*
CONT=EMPH PREF-sit.2-SENS shame feel-NMLZ:P NEG.EXV-SENS.Q
You are constantly idle; don't you feel any shame? (since you are doing nothing while others are working) (MEE)

(8.39) ***jæ****-wə-ndzon-ræ* *məka* *tɕʰæ-ʑæ* *ma-rɔ.*
CONT-PREF-sit.2-SENS shame feel-NMLZ:P NEG.EXV-SENS.Q
You are constantly idle; don't you feel any shame? (since you are doing nothing while others are working) (ACC; see 8.38)

Continuitivity is intuitively against perfectivity. Consequently, as a complex aspect, the continuative generally does not cooccur with the perfective. In the rare cases of cooccurrence, the combination of the continuative with the perfective seems to indicate repeating an action, rather than its uninterrupted continuation (8.40). The example additionally contains the locational noun *jæwo* 'same place' the first syllable of which clearly stems from the same source as the continuative prefix, *wo* being possibly related to the unproductive superessive suffix *-wo* (see §5.3.11).

(8.40) *e* *we* *jæwo* ***jæ****-dæ-v-to-sʰi.*
DEM house same.place **CONT**-PFV-INV-build.PST.3-IFR

mɛ-a̱-tɕi-sʰi.
ASP.NEG-INTR-move.PST.3-IFR
They built that (new) house at the same place (as the old one). They did not move. (MEE)

The continuative aspect exhibits considerable semantic variation (8.41, 8.42; following page). The scale of variation is illustrated with elicited verbs intentionally following the same pattern CNT-V-SENS in Table 8.7 on the following page. The emerging patterns are 1. continuation of state, 2. excessiveness, 3. lack of skill or capacity, 4. lack of reason.

Table 8.7. Semantic range of the prefix *jæ-*

Type	Verb	Example	Gloss
1	*dʑi* (V2b) 'to exist'	*jæ-dʑi-ræ.*	S/he is still here/there.
	smær (V4) 'to like'	*jæ-smær-ræ.*	S/he still likes him/her/it.
2	*vɕæ* (V3) 'to speak'	*jæ-vɕæ-ræ.*	S/he speaks excessively nonsense without knowing the matter.
	v-rə (V3b) 'to buy'	*jæ-v-rə-ræ.*	S/he buys yet another one even though the old one is enough.
3	*v-læ* (V4) 'to drive'	*jæ-v-læ-ræ.*	S/he drives with no skill or licence.
	zla (V3b) 'to sing'	*jæ-zla-ræ.*	S/he sings badly with no skill.
4	*v-s^{h}æ* (V4) 'to kill'	*jæ-v-s^{h}æ-ræ.*	S/he kills aimlessly with no reason.
	zvær (V3b) 'to light'	*jæ-zvær-ræ.*	S/he switches (the lights on) with no reason or need (e.g. in daytime).

(8.41) 1. continuation: *dʑi* (V2b) 'to exist, animate':
[house name removed] = *ts^{h}e* *rts^{h}æbə = ɲə = t^{h}ə* ***jæ-****dʑi-ræ.*
[house name removed]=ASS bull=PL=TOP **CONT**-EXV.3-SENS
The house of X still has their bulls (i.e. it has not been stolen). (RC)

(8.42) lack of reason: *næpa və* (N V3b) 'to haunt':
æŋ = ke *næpa* ***jæ****-və-ræ.* *ŋa* *tɕ^{h}æræ* *dæ-dəu*
1SG=DAT haunting **CONT**-LV:do.3-SENS 1SG thing PFV-do.1SG

mi-zda.
NEG-AUX.EXP.PERF
(The spirit) bears me a grudge and haunts me with no reason. I have not done anything bad (for the person when s/he was still alive). (MEE; see §2.7.1. *Ancestors* for the Geshiza beliefs concerning the revenge of the dead.)

When the continuative prefix *jæ-* attaches to an imperfective verb (see §8.4.2 on Langacker's terminology), emphasis is laid on the continuation of the state. In (8.43), it describes how the cat that was known to be shy of people and still keeps on fearing people:

(8.43) *t^{h}ævæ = be* ***jæ-****stɕær-ræ.*
now=too **CNT**-afraid.3-SENS
It (the cat) is still afraid. (UA)

Used together with perfective verbs (see §8.4.2 on Langacker's terminology), the continuative prefix highlights excessiveness, lack of skill or capacity for performing the action, or even lack of rationality and reason behind the action. This use greatly deviates from a prototypical continuative aspect. The phenomenon is nevertheless explainable from a typological perspective with language-internal evolution. Progressives often imply an action that is going on longer than expected, or sooner than expected (Timberlake (2007: 287). In turn, length exceeding one's expectations is very similar to excessive action. Excessive action in turn often happens due to the subject's lack of skill, capacity, or reason. To sum up, the original function of continuation has likely evolved into extended spheres in the following way (8.44):

(8.44) continuation → continuation for longer than expected → excessiveness → lack of skill, capacity, or reason

8.3.5. Cumulative

The cumulative aspect attaching to 'imperfective verbs' (see §8.4.2 on Langacker's terminology) expresses change in a measurable entity in tandem with temporal change and can often be translated as '(to become) more and more, less and less)'. In Geshiza, the relatively rare cumulative aspect is expressed by a morphologically complex structure consisting of the cumulative prefix *gægæ-* (glossing: CUM) attached to a non-past stem of verb, if available (8.45):

(8.45) *bæ-skæ* ***gægæ****-gæ-ntʃəu.*
Tibet-language **CUM-**IPFV-hear.PST.1SG
I understand Geshiza better and better. (MEE; formulated by a consultant for the author as a natural way to describe his developing competence in Geshiza)

The prefix *gægæ-* that already consist of the repeated syllable *gæ* is commonly further reduplicated (8.46, 8.47). In (8.47, following page), a Geshiza parent is critically commenting on his child's behaviour. The reduplication adds further emphasis to the cumulation:

(8.46) *'e=t^{h}ə* *<kuitɕa> =wo=t^{h}ə~t^{h}ə s^{h}o*
DEM=TOP state=ERG=TOP~RED more

gægæ~gægæ*-g-ə-ŋi-p^{h}ə=mɔ'* *jə-ræ.*
RED~CUM-PREF-NACT-be.good-AUX.CAUS.NPST.3=MOD say.3-SENS
'The State will make them (poor people) have better and better (conditions),' they (the government officials) say. (RN: chronicle/ethnographic description)

(8.47) ***gægæ~gægæ****-g-ə-mə-ŋi-ræ.*
RED~CUML-PREF-NACT-NEG-good-SENS
She is becoming worse and worse. (UA)

Like the continuative prefix *jæ-*, the cumulative prefix is rather loosely attached to its host. The prefix is thus a relatively new grammaticalisation, originating from the adverb *gægæ-* 'more and more' (8.48):

(8.48) ***gægæ~gægæ*** *tɕʰu* *ma-me* *tje-ræ,* *snoti.*
more.and.more~RED CONJ NEG.EXV-NMLZ:S become.NPST.3-SENS story
Stories are increasingly disappearing. (RC; see §2.7.4 for the challenges of orature)

8.3.6. Experiential perfect

The experimental perfect aspect in Geshiza is a periphrastic construction with multiple aspect marking. It is indicated lexically by the self-standing non-conjugating experiential auxiliary *zda* (V1b; glossing: AUX.EXP.PERF) appearing together with a perfective aspect prefix in the main verb (8.49, 8.50), other aspects being incompatible with the construction. In its core function, Geshiza experiential perfect conforms to Comrie's (1989: 58) generalisation: 'experiential perfect indicates that a given situation has held at least once during some time in the past leading up to the present.'

(8.49) *sopʰo* *æ-li* ***dæ-ɕʰoŋ*** ***zda.***
PN one-CLF.time **PFV-go.PST.1** AUX.EXP.PERF
I have been to Suopo once. (RN: personal history)

(8.50) *<ɕʰoɕən>* ***næ-ɕʰoŋ=læ*** ***mi-zda.***
student **PFV.DIR-go.pst.1**=FOC **NEG. AUX.EXP.PERF**
I haven't been to school. (RN: personal history)

The experiential auxiliary *zda* originates from the grammaticalisation of the noun/verb (see §6.2.4.1 for conversion) *zda* 'memory, to remember'. Having visited a certain place is overwhelmingly the most frequent context where the experiential perfect appears in everyday speech, *ɕə* (V2b) 'to go' frequently used as the main verb.

The experiential perfect aspect was first identified in Duo'erji (1997: 79) where the author calls it experiential aspect (经验体) and the marker *zda* a suffix. Nevertheless, *zda* is an auxiliary that is independent from the morphological verb affix chain. This is shown by the fact that both the interrogative and negative prefixes join the auxiliary, instead of appearing in their common position between the orientation-cum-TAM prefixes and the verb root. In (8.51), a couple jokingly discusses the benefits of living in the County Town and in the countryside:

(8.51) *braŋgu=t^{h}ə* *s^{h}o* *ætɕ^{h}əroro* *də-ræ=bɔ.* *<ʂændʐəŋxewe>*
TOPN=TOP DM everything EXV.3-SENS=MOD exotic.delicacies

də-ræ *s^{h}o.*
EXV.3-SENS DM
In Danba County Town, there is everything! There are all kinds of exotic delicacies. (speaker A)

ŋgə ***dæ-ɕ^{h}in*** ***æ-zda.***
eat.INF **PFV-go.PST.2** **Q- AUX.EXP.PERF**
Have you ever gone to eat them? (speaker B)

dæ-ɕ^{h}oŋ ***mi-zda.***
PFV-go.PST.1 **Q- AUX.EXP.PERF**
No, I haven't. (speaker A; RC)

The experiential perfect typically describes actions and events in which the speaker has personally participated, thus having direct experience and a personal memory of them. In non-prototypical cases, however, the form is also used when the speaker has no personal experience of an event in remote past. For instance, in (8.52), the speaker who has already retired himself talks about his grandfather, not himself, in which context he uses the experiential perfect:

(8.52) *ŋæ=nts^{h}e* *æmŋi=je* *lmə=t^{h}ə* *zimbo* *dæ-jə-s^{h}i* .
1=ASS.GEN grandfather=GEN name=TOP PN PFV-say.3-NMLZ

ŋuə-ræ *oja* *xə* *tɕ^{h}a=ræ* *ŋui* *<xontɕyn>=nɔ*
COP.3-SENS INTERJ DEM time=LNK before Red.Army=LOC

dæ-mdʐi ***zda=ræ...*** […]
PFV-EXV.3 **AUX.EXP.PERF**=LNK […]
The name of my grandfather was *zimbo*. At that time, in the past, he was part of the Red Army… (RN: family history)

In (8.53, following page), the speaker reports what happened when he was a child in the 1940s during the Second World War and met a foreigner who wanted to take him to his homeland. The speaker states to have completely forgotten the intriguing incident and is aware of it only because of his father and grandfather's stories, yet he reports the foreigner's arrival of with the experiential perfect. The story has likely been frequently repeated in the family. As a result, it has become part of the speakers 'memories', and the experiential perfect is used:

(8.53) *dəu~dəu* *ŋoŋ* *ɕʰa=ræ* *ʂŋe-ko* *tɕʰa,* *tɕʰa-ræ* *bɔtʰə*
RED.ADJZ~small COP.1 time=LNK seven-CLF.year time time=LNK like.that

æ-ɣi *dæ-ʑe-sʰi* *ŋuə-ræ.* […] *bɔtʰə* *æ-ɣi*
one-CLF.person PFV-come.3-NMLZ COP.3-SENS […] *bɔtʰə* one-CLF.person

dæ-ʑe ***zda.***
PFV-come.3 **EXP.PERF.AUX**
When I was young, approximately seven years old, then, a foreigner arrived (here). Like this, one (foreigner) has come here to our place. (RN: family history)

Typological remark
Timberlake (2007: 292) states that perfects are usually formed with periphrastic morphology, such as an auxiliary. Geshiza with its experiential perfect auxiliary *zda* neatly follows this typological tendency.

8.3.7. Completive

Geshiza uses a periphrastic construction to express the completive aspect, wherein the verb *stʰæ* takes an infinitive (see §4.3.6) complement (8.54). Typologically, completive aspect refers to action that is done 'thoroughly and to completion' (Bybee et al. 1994: 54), and Geshiza conforms to this generalisation. While the verb *stʰæ* (V3b) 'to finish, be finished' has acquired a status similar to auxiliaries in the construction, it is also used independently in the language (8.55). In forming the completive aspect, Geshiza structurally resembles Tibetan where a complementary verb *tshar* 'to be finished' follows a past stem, marking the completion of an event (Zeisler 2004: 493).

(8.54) *<xuaɕʰo>,* *<xuaɕʰo>* ***ra*** ***dæ-ste=jɔ.***
fertiliser fertiliser **LV:hit.INF** **PFV-finish.PST.2SG=Q**
Have you finish applying the fertiliser? (RC)

(8.55) *oja* *bɔ-tʰə* *ŋuə-ræ.* ***dæ-stəu.***
INTERJ like-DEM COP.3-SENS **PFV.finish.PFV.1SG**
It was like this. I am finished. (RN: chronicle)

Like the experiential perfect, the completive is a complex aspect, since *stʰæ* cooccurs with the perfective aspect in simple clauses, being constantly prefixed with the perfective prefix *dæ-*. The cooccurrence highlights semantic similarity between the perfective and completive in Geshiza.

8.3.8. Semelfactive

In Geshiza, the semelfactive aspect refers to an action done once: e.g. 'to smell something once' (8.56); 'to step on something once' (8.57); 'to jump once' (8.58). Semelfactives are formed through derivation of a semelfactive noun (see §6.2.3.3) from an applicable verb by means of attaching the prefix *æ-* 'one' (glossing: SEM) to an infinitive (see §4.3.6), the resulting noun being accompanied by the light verb *v-ra* (V3a) (see §4.3.7.1) with the original meaning 'to hit'. To illustrate: *rtɕʰæ* (V3a) 'to bite' > *æ-rtɕʰæ v-ra* 'to bite once'. Because in addition to aspectual neutrality, the light verb *v-ra* can also carry primary aspect markers, such as *dæ-* for the perfective aspect, Geshiza semelfactive is a complex, secondary aspect.

(8.56) *xaræ* ***æ-snəno*** ***dæ-v-ra*** *= ræ* *dzi = tʰə* *mɛ-ŋgə-sʰi.*
CONJ **SEM-smell** **PFV-INV-LV:hit.3**=LNK food=TOP ASP.NEG.eat.3-IFR
He smelled the dish once, but didn't eat it. (RN: folktale)

(8.57) *mpʰri* *æ-qʰa* *dzi,* *mpʰri .* […] ***æ-ntɕʰua*** ***næ-rəu.***
snake one-CLF.stick EXV.3 snake […] **SEM-step.on** **PRV.DIR-LV:hit.1SG**
There is a snake, a snake… I stepped on it once. (RN: personal history)

(8.58) ***æ-ntʰəpʰo*** ***gæ-rɛ.***
SEM-jump **IMP-LV:hit.2SG**
Jump! (RN: chronicle)

In special cases, the use of the semelfactive aspect triggers interpretations depending on the semantics of the semelfactivised verb and discourse context, illustrated by the aspectually contrasting pair (8.59, 8.60) below:

(8.59) *æ-pʰje* *dæ-v-ra-sʰi.*
SEM-escape PFV-INV-LV:hit.3-IFR.
It (e.g. a domestic animal) escaped (but returned). (MEE)

(8.60) *dæ-pje-sʰi.*
PFV-escape.3-IFR
It (e.g. a domestic animal) escaped (but did not necessarily return). (MEE)

8.4. Tense

Tense being defined as 'grammaticalised expression of location in time' (Comrie 1985: 9), Geshiza exhibits a system of grammaticalised absolute tense. The language makes a binary distinction between past and non-past tenses, the two of which are expressed by means of stem

alternation (see §4.3.5.3). This simplicity greatly contrasts with the aspectual complexity introduced above. This section starts with an overview of tense in Geshiza (§8.4.1), moving to discuss the non-past (§8.4.2) and past tenses (§8.4.3), concluding with an analysis on the co-occurrence of tense and other grammatical categories in Geshiza grammar (§8.4.4).

8.4.1. Overview

Tense is a grammaticalised grammatical category in Geshiza. The language exhibits what is termed as a 'binary tense system' (Comrie 1985: 48-49). As Figure 8.5 illustrates, the reference point 'now' of an utterance divides the time flow into two separate segments: past (glossing: PST) and non-past(glossing: NPST):

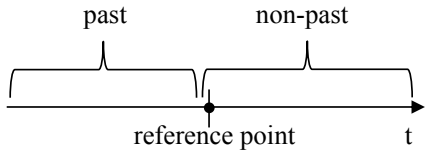


Figure 8.5. Time flow and tense categories in Geshiza

Geshiza marks tense by stem alternation in the verb, the alternation concerning aspiration. For this reason, the alternation type is called aspiration alternation in this grammar (see §4.3.5.3 for a detailed formal analysis). In general, the past tense is derived from the present tense by changing the aspiration value of all aspirable consonants in the stem: e.g. *ɕə* 'go.NPST.3', *ɕʰə* 'go.PST.3'; *v-tʰæpʰæ* 'take.out.NPST.3', *v-tæpæ* 'take.out.PST.3'. Since stem alternation in Geshiza concerns only consonants that have both aspirated and unaspirated counterparts, and other alternative stem alternation mechanisms are lacking in the language, save suppletion in the case of *ɕə* 'to go' (see §4.3.5.4), it follows that not all verbs have two formally marked tenses.

8.4.2. Non-past tense

The non-past tense covers both the present and the future time. To understand the exact time reference of the verbs used in the non-past stem, it is helpful to refer to Langacker's (1987) subclassification of verbs into perfective and imperfective. Langacker's perfective verbs express events bounded in time and imperfective verbs express states or events with an indeterminate extent in time. The perfective and imperfective verbs are also commonly called active and stative, respective, but in order to avoid terminological overlap with stative verbs narrowly defined for the purposes of Geshiza in verb classification (see §4.3.4), Langacker's terminology is retained here. Table 8.7 on the following page illustrates imperfective and perfective verbs in Geshiza:

Table 8.7. Imperfective and perfective verbs in Geshiza following Langacker (1987)

Imperfective verb	Gloss	Perfective verb	Gloss
ɾga (V2b)	to love	*ɕə* (V2b)	to go
v-se (V4)	to know	*v-ɕʰi* (V4)	to take somewhere
vɕe (V1b)	to need, want	*ŋgə* (V4)	to eat
vdo (V4)	to see	*v-ra* (V3a)	to hit

In Geshiza non-past, a perfective verb, such as *v-ɕʰi* (V4) 'to take (a person somewhere)' does not refer to the actual present moment of the speech act, but denotes either imminent future or habitual action. For instance, *ɕʰan*, 'we will take' in (9.61) represents a dynamic event that has not yet been initiated at the time of the speech act, but is planned in the mind of the utterer, and will happen on the following day:

(8.61) *qʰæsʰi=tʰə* *lŋa=ɲə* *<ʈʂʰuæntʂʰuæntɕan>=ɲə* *ŋgə* *æ-li*
tomorrow=TOP child=PL meat.skewer=PL eat.INF one.CLF.time

ɕʰan.
take.NPST.1PL
Tomorrow we will take the children to eat meat skewers. (RC)

The bounded time frame of the perfective verbs does not match with the speech act itself. If the speaker wants to use a perfective verb denoting action that is contemporaneous with the speech act, the imperfective aspect is used. In the conventional Geshiza greeting (8.62) the speaker sees a person in the process of some action where both the action and the speech act have temporal overlap. In (8.63) taken from a different context, the speaker asks his wife about the state of the dinner, the moment of the wife's reply overlapping with cooking of the dinner:

(8.62) *ætɕʰə* ***gæ-de***
what **IPFV-do.2SG**
What are you doing? (OU)

(8.63) *ŋa* *dzi* ***gæ-vu*** *zə-stʰəu=bɔ.*
1SG food **IPFV**-do.1SG PROSP-finish.NPST.1SG=MOD
I am cooking food. I am about to be finished! (RN: chronicle)

Imperfective verbs, e.g. *v-se* (V4) 'to know' *ɾga* (V2b) 'to love', behave differently from perfective verbs. In (8.64), *smær* (V4) 'to like' represents a static situation in which the temporarily unbound event of liking is not posterior, but contemporaneous with the speech act:

(8.64) *lŋa=ɲu* *<joŋji-tsʰɛ>* ***smær-ræ=gæ.***
child=PL.ERG potato-dish **like.3-SENS**=MOD
The children like the potato dish. (RN)

8.4.3. Past tense

Geshiza past tense never occurs independently without accompanying aspectual marking. The perfective and imperfective aspects require a past tense stem. The interrelatedness of tense and aspect is further discussed below.

8.4.4. Tense and other grammatical categories

This subsection discusses the mutual connections between tense, aspect, mood, and orientation. To begin with, tense and aspect are deeply intertwined, and build a network illustrated in Table 8.8 below containing the primary aspects:

Table 8.8. Stem and aspect concordance

Tense	Aspect			
	Neutral	Prospective	Imperfective	Perfective
Non-past	✓	✓	✗	✗
Past	✗	✗	✓	✓

The Table illustrates that in terms of the primary aspects, non-past stems cooccurs with the prospective, in addition to being required by all aspectually neutral forms. In contrast, the past stem occurs with both the imperfective and perfective aspects. Since the past stem never occurs independently, the confluence of the perfective and past can also be called aorist. Also, the confluence of the imperfective and past can be called imperfect. Examples (8.65-8.68) further illustrate tense-aspect compatibility in Geshiza:

(8.65) Non-past stem alone with an aspectually neutral meaning:
ŋa *lŋa* ***mtɕʰikʰu=bɔ.***
1SG child **watch.NPST.1SG**=MOD
I will look after the child(ren). (UA)

(8.66) Non-past stem with the prospective:
tʰævæ *<ji>* *<tiæn>* *<pæn>* ***zə-tje-ræ.***
now one o'clock half **PROSP-become.NPST.3-SENS**
It is about to be one thirty. (UA)

(8.67) Past stem with the imperfective (imperfect):

ɲi *xazi-ko* ***gæ-tʰjin.***
2SG how.many-CLF.year **IPFV-become.PST.2**
How old are you? (UA)

(8.68) Past stem with the perfective (aorist):

vdzi ***dæ-sæ-sʰi.***
man **PFV-die.PST.3-IFR**
A man died. (RN: chronicle)

Also, while orientation is compatible with both past and non-past tenses, modal categories and tense are interwoven with limitations. The interrogative mood occurs both in past and non-past contexts, which is to be expected, since many questions also address a past time frame. On the other hand, the imperative, optative and general realis expressing *inter alia* habitual action only occur in a non-past context. As a result, commands and wishes in the past, e.g. '*Have studied for yesterday's exam!' and '*Let him have come home safely!' for instance, cannot be expressed by means of using the aforementioned modal categories in a past context. The allowed combinations are illustrated in Table 8.9 with further examples below (8.69-8.75). Furthermore, the following section is dedicated to mood in Geshiza.

Table 8.9. Concordance of the stems with orientation and mood

Tense	Orientation	Mood			
		Interrogative	Imperative	Optative	Non-act. realis
Non-past	✓	✓	✓	✓	✓
Past	✓	✓	✗	✗	✗

(8.69) Orientation with the non-past tense:

[…] <ɕintɕʰiwu> =ke=ræ~ræ lŋa=ɲi <fan> ə <fanɕʰuo>
[…] Friday=DAT=LNK~RED child=PL.GEN HES HES classes.over

və tɕʰu <ɕintɕʰiwu> =ke=ræ~ræ ***rə-tjan.***
LV:do.3 CONJ Friday=DAT=LNK~RED **DIR-come.NPST.1**
On Fridays, the children's classes are over, so we come (up) here (RN: procedure)

(8.70) Orientation with the past tense:

bəsni gædə qa ***rə-ɕʰoŋ.***
today morning mountain **PFV.DIR-go.PST.1**
Today morning I went up to the mountains. (RN: chronicle)

(8.71) Interrogative mood in the non-past tense:
æ-rkʰo-ræ.
Q-cold.NPST-SENS
Is it cold? (OU)

(8.72) Interrogative mood in the past tense:
d-i-sæn.
PFV-Q-kill.PST.2SG
Did you kill her? (RN: folktale)

(8.73) Imperative with the non-past tense:
<tɕʰi> *<tiæn>* *<pæn>=ke* ***næ-tʰe***
seven o'clock half=DAT **IMP-reach.NPST.2SG**
Arrive at seven thirty in the morning! (RN: chronicle)

(8.74) Optative with the non-past tense:
sʰo *gæ-vtsʰe* *lɔ* ***n-a-tjan.***
more ADJZ-wealthy again **PREF-OPT-become.NPST.1**
On top of this, let me become even wealthier! (RN: folktale)

(8.75) Non-actual realis with the non-past tense:
smənlæn=ke, *rgəmbəu* *smənlæn=ke=dʑe* ***d-ə-ɕoŋ.***
smon.lam=DAT monastery smon.lam=DAT=TOP **PREF-NACT-go.NPST.1**
(Every year habitually,) we go to monasteries during the *smon lam* Prayer Festival.
(RN: procedure; see §2.4.1 for the pan-Tibetan Festival)

8.5. Reality status and mood

The architecture of Geshiza grammar includes the formally marked category of reality status. Despite their frequent appearance in descriptive linguistics, the terms realis and irrealis are often poorly defined (Elliott 2000). To draw a line between mood and modality, I define moods in Geshiza as a grammatical property formally marked in the verb to code subcategories of reality status, which is either realis or irrealis. As a result of this definition, other manifestations of modality, such as modal auxiliaries, modal discourse markers, and modal constructions, are discussed separately in the following section.

In addition to the default unmarked indicative (§8.5.1), Geshiza realis categories contain a non-actual realis (§8.5.2) and an interrogative (§8.5.3). The irrealis categories in turn are the imperatives (§8.5.4), and the optative (§8.5.5). As discussed in the introduction, reality status in Geshiza is defined in the present grammar via a prefixation test: moods that take standard

negation (see §11.2.1) are called realis while those that require a dedicated negative prefix *-di- ~ -dʑi-* (see §11.2.3) are considered irrealis. Additionally, all realis moods and none of the irrealis moods allow for evidential marking (see §9.3.1 for details).

Save the indicative and the imperative historically derived from it, all moods are marked by a single vowel prefix that fuses with the orientational prefix of a verb through irregular vowel fusion, for which historical reasons likely exist. To illustrate: *dæ-i-ŋgi* > *di-ŋgi* 'Did you eat?' Since realis is the default interpretation of the vocalisation of a verb prefix, its reality status is not indicated in glossing. The interrogative mood has an allomorph *æ-* when no verbal prefix is present, omitted from the Table. Table 8.10 from §8.1 summarising the formal manifestations of the irrealis categories is reproduced again below for the convenience of the reader:

Table 8.10. Reality status and mood categories with dedicated prefixation in Geshiza

Realis			Irrealis	
Indicative	Non-actual	Interrogative	Imperative	Optative
rə-	*r-ə*	*r-i-*	*rə-*	*r-i-*
næ-	*n-ə-*	*n-i-*	*næ-*	*n-i-*
wə-	*w-ə-*	*w-i-*	*wə-*	*w-i-*
gæ-	*g-ə-*	*g-i-*	*gæ-*	*g-i-*
dæ-	*d-ə-*	*d-i-*	*dæ-*	*d-i-*
zə-	n/a	*z-i-*	n/a	n/a

Since the prefixes *wə-*, *rə-* and *zə-* are vocalised with a schwa, the non-actual realis with a schwa vocalisation are not formally differentiated in these contexts. Consequently, the discourse contest reveals whether the schwa encodes the indicative or the non-actual realis in this context. Also, the optative (*-a-*) and interrogative (*-i-*) prefixes carry an accent, which results in prolonged vocalic quality.

The indicative and interrogative occur freely with both the non-past and past tenses, all other irrealis categories requiring the non-past tense. Also, it seems that aspectual distinctions get neutralised in non-actual realis, imperative, and optative. Due to this reason, the orientation-cum-aspectual prefixes that generally carry aspectual distinctions are glossed neutrally as PREF 'prefix' in these contexts. The mood categories are paradigmatically illustrated with examples in (8.76):

(8.76)				
	Indicative:	*dæ-ɕʰə*	PFV-go.PST.3	(S)he went.
	Non-actual realis:	*d-ə-ɕə*	PREF-NACT-go.NPST.3	(S)he goes habitually.
	Interrogative:	*d-i-ɕʰə*	PFV-Q-go.PST.2	Did (s)he go?
	General imperative:	*dæ-ɕin*	IMP-go.NPST.2	Go (away)!
	Optative:	*d-a-ɕə*	DIR-OPT-go.NPST.2	Let him/her go!

Historical-comparative remark

Of all known Horpa lects this far, Geshiza has evolved the most complex mood system based on paradigmatic vocalic prefixes. Stau greatly resembles Geshiza. To illustrate, the interrogative mood in Poxiu Stau is expressed by means of a prefix fusioning to the verbal prefixes, and an irrealis category coded with *-æ-* exists in the lect (own fieldwork). Similarly, the extinct Tangut has two series of vocalisations in verbal prefixes that are functionally similar to those of Geshiza (Kepping 1985: 190; further elaborations e.g. Jacques 2011b; Arakawa 2018: 70). This shows that the phenomenon is historically old and not merely a Geshiza innovation.

8.5.1. Indicative

Indicative is the default mood in Geshiza, expressing a statement or a fact in declarative sentences (8.77). The indicative lacks dedicated overt marking, Like the non-marked absolutive case, it is left unglossed in this grammar. By far, the indicative mood dominates in everyday conversation, being thus also the unmarked form from the viewpoint of frequency.

(8.77) *ŋuidə=t^{h}ə* *<jyarjyæn>* *bɔt^{h}ə* ***dæ-ma=gæ.***
past=TOP kindergarten like.that **PFV-NEG.EXV**=MOD
In the past, there were no kindergartens and like that. (RN: ethnographic description)

8.5.2. Non-actual realis

Non-actual realis marked with the prefix *-ə-* (glossing: NACT) is one of the most perplexing aspects of Geshiza grammar. It requires the non-past stem of a verb and must be negated by means of standard negation (8.78). Semantically, action indicated by the mood refers to habitual action (8.78, 8.79) or to planned course of action in the future context (8.80, 8.81). For instance, in (8.79), the use of non-actual realis mood implies that carrying meat to be blessed is a general habitual procedure that takes place when the Geshiza depart for pilgrimage trips. In (8.80), the use of the non-actual realis indicates that the speaker who is talking with a relative is planning to ask people concerning an affair after the conversation is finished. The mood cannot be used for generic statements of 'universal truths' and natural laws, e.g. 'Yaks have thick fur,' 'Snow melts when the weather is hot'. Additionally, stative verbs are not compatible with the non-actual mood.

(8.78) *oja* *æleæli* *mdʑə* ***d-ə-v-tə*** *æleæli=t^{h}ə*
INTERJ sometimes dance **PREF-NACT-INV-dance.NPST.3** sometimes=TOP

mdʑə ***d-ə-mi-v-tə.***
dance **PREF-NACT-NEG-INV-dance.NPST.3**
Sometimes (i.e. on some years) people dance and sometimes, they don't (during the annual festival). (RN: ethnographic description/procedure)

(8.79) *ŋæ=ɲi xo=t^{h}ə skærva ɕə tɕ^{h}a=ræ nana* ***d-ə-ɱgo.***
1=PL.GEN DEM.GEN=TOP pilgrimage go when=LNK meat **PREF-NACT-carry.3**
In our place, when people go for a pilgrimage, they carry meat with them (RN: ethnographic description; see end of 2.6.4. concerning food and pilgrimages).

(8.80) *lɔ æ-lə* ***g-ə-ɾjəu.*** *ædeɲə=ke*
again one-CLF.INDEF **PREF-NACT-ask.1SG** 3NON.SG=PL=DAT

g-ə-ɾjəu=mde s^{h}o.
PREF-NACT-ask.1SG=MOD DM
I will ask again. I will ask them again. (RC)

(8.81) *ŋa t^{h}ævæ jolva dʑan. xarə=k^{h}a*
1SG now medial.mountainside.LOC EXV.1 moment=about

næ-təu tɕ^{h}a lɔ ***g-ə-ɾəu=***bɔ.
PFV.DIR-reach.PST.1SG when again **PREF-NACT-LV:hit.1SG**=MOD
I am (visiting a house that is located) at the mountainside. I will call you again after a moment when I am back home. (OU)

The shared ground between the two main functions described above lies in their non-actuality. To illustrate, habitual action in Geshiza does not refer to a particular event that is taking, took, or will take place, but characterises a general state of affairs taking place habitually or customarily. Similarly, reference to planned future action is by default non-actual, since the event only exists as a plan in the speaker's mind and will possibly not be executed. Geshiza non-actual mood thus shares characteristics with aspect and tense. Debate exists in the literature concerning the status of habitual as an aspect (Carlson 2012). I place the non-actual among moods in Geshiza, since it exists paradigmatically with other modal categories, rather than with aspect markers discussed earlier in this chapter.

8.5.3. Interrogative

Interrogation in Geshiza is discussed in detail in §10.1. Paradigmatically with the other moods, Geshiza has an interrogative mood coded with a vocalic prefix *-i-* (glossing: Q). The prefix fusions with the verbal prefixes (8.82, following page). In non-prefixed environments, the interrogative prefix *æ-* (glossing: Q) is used (8.83). The negation test proves that the interrogative mood in Geshiza to belong to the realm of realis, rather than irrealis (see §10.1.6 where this is shown in the context of auto-interrogation).

(8.82) ***d-i-tɕʰɔ.***
PFV-Q-be.pleasant.PST
How are you? (lit. Was it pleasant?) (OU and UA; a common Geshiza greeting)

(8.83) ***æ-tɕɔ-ræ.***
Q-be.pleasant.NPST-SENS
Are you feeling comfortable? (lit. Is it pleasant?) (UA)

8.5.4. Imperatives

Counting the negative imperative separately, Geshiza has four imperative constructions: general imperative, prohibitive, apprehensive imperative, and an archaic imperative. Imperatives are supplemented by the use of optative for non-canonical imperatives, a mood category discussed in the following subsection. Section §10.2 includes a dedicated discussion of Geshiza command strategies.

The general imperative, the most frequent command strategy in the language, contains all the possible verbal prefixes of the indicative in an identical form, save the absent prospective, illustrating the endpoint in a grammaticalisation path direction > perfective aspect > imperative (see §10.2.2). In this context, the functionally motivated glossing IMP is always included.

It is negated with the irrealis negator *-di- ~ -dʑi-* resulting in the prohibitive (8.84, 8.85; see §10.2.4). Using standard negation reserved for the realis category results in ungrammatical formation (8.86). Other imperative strategies do not contain negation or other hints concerning their reality status. Consequently, the general imperative and prohibitive can be formally shown to be irreal without any doubt, and other imperative strategies are expected to have similar behaviour. Finally, as the examples illustrate, Geshiza repertoire of imperatives only contains commands in non-past tense, the past tense being incompatible with the imperatives.

(8.84) ***dæ-ɕin,*** *ŋɛ* *xo.*
IMP-go.NPST.2 1SG.GEN DEM.LOC
Get away from me! (lit. Get away from my place!) (RC)

(8.85) ***dæ-di-ɕin.***
IMP-IRR.NEG-go.NPST.2
Do not go (away)! (RN: folktale)

(8.86) ****dæ-mi-ɕin.***
IMP-NEG-go.NPST.2
Intended meaning: Do not go (away)! (REJ; see 8.85)

8.5.5. Optative

Among the irreal moods, Geshiza also has an optative marked by *-a-* (glossing: OPT) that is always accentuated, which results in prolonged vowel quality (see §10.2.6 for a dedicated discussion in the context of imperatives). Like the general irrealis, the optative requires the non-past tense. The form has cognates among other Gyalrongic languages. For instance, it is likely related to Wobzi Khroskyabs irrealis *â-* (Lai 2017: 331-334). The optative must be negated with the irrealis negator *-di- ~ -dʑi-,* since standard negation is judged ungrammatical (8.87, 8.88). Negated optatives, however, appear with far lower frequency, which necessitated their monolingual elicitation.

(8.87) ***na-di-guæ.***
PREF-OPT-IRR.NEG-collapse.ANTICAUS
Let (that shaky looking building) not collapse! (MEE)

(8.88) ****na-mi-guæ.***
PREF-OPT-NEG-collapse.ANTICAUS
Intended meaning: Let (that shaky looking building) not collapse! (REF; see 8.87)

The Geshiza optative two three main uses: cupitive and prescriptive. First, the optative encodes a wish. In this cupitive function, the speaker wishes for a certain state of affairs either to take or not to take place. It is frequently used in prayers addressed to the Geshiza deities (8.89, 8.90). Through the cupitive function, the optative supplements the general imperative that is only restricted to the second person by covering the remaining personal range of the first and second persons.

(8.89) *sʰæ-me* *dæ-ma* ***n-a-ŋi=mɔ.***
dead-NMLZ:S PFV-NEG.EXV **PREF-OPT-be.all.right=MOD**
Let there be no deaths, all going well! (prayer)

(8.90) *ʑə* *gæ-mdze* *n-ə-vzoŋ=ræ* *'sʰævi=ræ* *rtʰəu*
field ADJZ-beautiful PREF-NACT-make.1PL=LNK next.year=LNK crops

n-a-ɲjæ=mɔ' *d-ə-joŋ* *tɕʰu.*
PREF-OPT-be.good=MOD PREF-NACT-SAY.1 CONJ
(During the annual cultivation ceremony dedicated to the lord of the field), we make the fields beautiful and say 'Let the crops be plentiful the next year!' (ethnographic description/procedure; see §2.7.1. *Other divinities of folk religion* for the cult of the lord of the fields)

Second, in its prescriptive use, the optative encodes deontic modality: 'one should'. In other words, the speaker expresses his or her view on the desirability of an action, likely a derivation from the cupitive function. In (8.91), the speakers who are a couple discuss how they plan to celebrate the birthday of their daughter. The husband asks whether it is desirable to have a larger party by also inviting his parents, to which his wife answers in the affirmative.

(8.91) *æpa* *xə=ɲə=be* *æzɣa* *dzo-wa*
father DEM=PL=too static.medial.downriver.side bridge-APUD

<tɕʰuæntɕʰuænɕaŋ> *tʰo* ***w-a-ʑe=jɔ.***
meat.skewers DEM.LOC **DIR-OPT-come.3**=Q
Should they and father too come to the riverside (downriver from our current location) to eat the meat skewers? (speaker A)

w-a-ʑe=bɔ.
DIR-OPT-come.3=MOD
Yes, they should! (speaker B; RC)

8.6. Modality

Geshiza has three major modal constructions: permissive (§8.6.1), necessitative (§8.6.2) and potential (§8.6.3). The language also contains a wide range or modal auxiliary verbs (§8.6.4) and modal discourse enclitics (§8.6.5). Several modal adverbs are also identified (§8.6.6).

8.6.1. Permissive

In its repertoire of modal constructions, Geshiza includes a permissive construction constructed with a permissive nominalisation (see §4.3.7.3) and the existential verbs *də* (§7.6.1), as in (8.92). The construction is negated with the negative existential verb *ma* (§7.6.2), as in (8.93). Further negating the infinitive and thus forming a double negative construction forms a strong necessitative 'no permission not to do something' discussed in detail in the context of negation (§11.2.6).

(8.92) *<ʈʂʰetsə>* ***mʑdə-rgui*** ***də-ræ=gæ.***
car **exchange-NMLZ:permission** **EXV-SENS**=MOD
Changing the car is allowed. (RC)

(8.93) *wo* ***sʰæ-rgui=be*** ***ma.***
bear **kill-NMLZ:permission**=too **NEG.EXV**
Killing bears is not permitted either. (RN; local history)

8.6.2. Necessitative

Geshiza has a periphrastic necessitative (alternatively: obligative) construction 'to have to do something'. The construction is formed with an action nominalisation (§6.2.3.1) followed by the affirmative copula (§4.3.8) that always appears in the third person form with no person indexation in the construction (8.94, 8.95):

(8.94) *lmæ=ke* *gəɕʰo* ***jə-ʑæ*** ***ŋuə-ræ.***
3=DAT evening **say-NMLZ:P** **COP.3-SENS**
I need to tell him in the evening (RC)

(8.95) *ræɣuə-<tsʰɛ>* *zɔ~zɔ* *jinʤ̪an* ***ŋgə-ʑæ*** ***ŋuə-ræ.***
pickled.vegetable-dish INTERJ~RED frequently **eat-NMLZ:P** **COP.3-SENS**
(In the cold season), we need to frequently eat only pickled vegetables. (RC)

If a subject is included, it must be marked with the genitive case common for Experiencers (§7.4.5) and also present in the double negative construction (see §11.4.1) that the necessitative bears strong semantic resemblance with (8.96, 8.97):

(8.96) *e* *tʰo* *stɕəpɛ=je* ***ɕə-ʑæ*** ***ŋuə-ræ.***
DEM DEM.LOC villager.GEN=GEN **go-NMZL:P** **COP.3-SENS**
Villagers must go there (to participate in the activities). (RN)

(8.97) *ŋa=ɲi=be* *ɕʰæmu* ***g-ə-tʰæ-ʑæ*** ***ŋuə-ræ=me.***
1=PL.GEN=too effort **PREF-NACT-make.an.effort-NMLZ:P** **COP.3-SENS=MOD**
We need to make an effort too! (RC)

8.6.3. Potential

Geshiza grammar includes a potential construction 'probably, likely' formed with a dedicated potential marker *-ɣa* (glossing: POT) that adjoins a nominalised verb followed with the affirmative copula (8.98-8.100):

(8.98) *ŋæ=ɲə* *wtɕʰəu* *ə* *sɲe-ko* *rjɛ-ko* *bɔtʰə*
1=PL six HES seven-CLF.year eight-CLF.year like.that

gæ-tʰjan *tɕʰa* *tɕʰu* *losær* *lɔ* ***dæ-də-sʰi-ɣa***
IPFV-become.PST when CONJ New.Year again **PFV-EXV-NMLZ-POT**

ŋuə-ræ.
COP.3-SENS
It might have been the time when we became seven-eight years old that the Tibetan New Year was celebrated again. (see §2.8.1. *Incorporation into the PRC and modern times* concerning a ban on the New Year celebrations during the Cultural Revolution) (MEE: interview)

(8.99)

ŋui	*ts^{h}æ*	*k^{h}ɔ*	*dʑo~dʑo*	*dæ-ntɕo.*	*aja*	*æ-rjə*
before	goat	INTERJ	RED~many	PFV-own.PST.3	INTERJ	one-hunderd

mətsʰæ	***dæ-ntɕo-sʰi-ya***	***ŋuə-ræ.***
more	**PFV-own.PST.3-NMLZ-POT**	**COP.3-SENS**

In the past, they (my forefathers) had had a lot of goats! Alas, they probably had more than a hundred (goats), right? (RN: local history)

(8.100)

qʰæsʰi=tʰə	***rkʰo-me-ya***	***ŋuə-ræ=mde.***
tomorrow=TOP	**be.cold-NMLZ-POT**	**COP.3-SENS**=MOD

Tomorrow will probably be cold. (MEE: interview)

In contemporary Geshiza, the potential almost invariably cooccurs with nominalised verbs. Conversely, itis incompatible with non-nominalised verb stems where attempts of use are deemed ungrammatical. The only identified exception is when the verb *stɕær* (V2b) 'to be afraid' takes a complement that may directly host the potential suffix (see § 12.4.1 for more in the context of complementation), as illustrated in (8.101):

(8.101)

'pʰe	*rə-ɕʰoŋ=læ*	*lməu=wo*	*<ren>*	*mi-van*
other	PFV.DIR-go.NPST=COND	3.ERG=ERG	recognition	NEG-LV:do.1

tɕʰu	*ŋæ=ɲə=ke*	***v-dæ-ya***	***stɕoŋ-ræ'***	*jə-ræ-jə.*
CONJ	1=PL=DAT	**INV-hit.and.curse.3-POT**	**afraid.NPST.1-SENS**	say-SENS-REP

('You are his mother, so go up into the mountains to ask your son *æmɲi skældoŋ* with enormous powers to come down to destroy the ogress.) If someone else of us goes there, he does not recognise us, so we are afraid that he might will curse and hit us,' they are said to have said. (RN: folktale)

The mentioned example is both structurally (*-ya* attaching to a verb stem) and semantically (X potentially does Y vs. there is danger/possibility that Y occurs) vaguely similar to the apprehensive imperative. As discussed in §10.2.3, the apprehensive imperative has likely evolved from the potential.

8.6.4. Modal auxiliaries

As shown in §4.3.8, Geshiza has both free (independent) and bound modal auxiliaries, discussed below:

Free modal auxiliaries

I define free modal auxiliaries for Geshiza as potentially complement-taking verbs that have a modal function in the language and deploy a dedicated negation device in non-aspectual negation (see §11.2.2). The eight independent modal auxiliaries are listed in Table 8.11 below. Except for *snə* (V3b) 'to dare', all modal auxiliaries are intransitive in Geshiza. The modal auxiliaries also lack general imperative (see §10.2.2) formations: **dæ-tɕʰan* (IMP-can.NPST.2) with the intended meaning **Can!*, also ungrammatical in English. In addition, two bound auxiliaries *-tɕʰi* and *-vtɕæ* identified §4.3.8 exist. They do not fit this narrow formal definition, yet are also semantically modal.

Table 8.11. Independent modal auxiliary verbs in Geshiza

Modal auxiliary	Modal value	Gloss
mə-grə (1b)	dynamic	to be unable (only negative)
mɲə (2b)	dynamic	can, be able
ŋi (V1a)	deontic	to be all right, acceptable
mə-ske (1b)	deontic	should not (only negative)
sko (V1b)	dynamic	to manage, can, be able
snə (3b)	dynamic	to dare
tɕʰa (2b)	dynamic	can, be able
vɕe (1b)	dynamic;	to want, need;
	deontic	must (deontic)

Palmer (1986: 9-10) distinguishes deontic and dynamic modality, the conditioning factors being external in the former and internal in the latter. As a result, deontic modality expresses obligation or permission while dynamic modality expresses individual's ability of willingness. Adopting Palmer's widely-used division, Geshiza modal auxiliaries form deontic and dynamic subgroups, the latter dominating. The independent modal auxiliaries have no epistemic use. Particular modal auxiliaries for which ample data exists are briefly discussed below.

Modal auxiliaries mɲə, tɕʰa, sko, *and* grə

The modal auxiliary *mɲə* (2b) 'can, be able' is used for acquired ability, such as speaking a certain language or knowing how to do a task (8.102). It thus functionally contrasts with the modal auxiliary *tɕʰa* (2b) 'can, be able' that denotes innate or physical ability, such as the ability of birds to fly or the (in)ability of a cat to eat food with hard bones (8.103):

(8.102) *o* *skæ=dʑe* *gəndɔ* ***mə-mɲə,*** *æ-ŋuə-ræ.*
INTERJ language=TOP strongly **MOD.NEG-can.3** Q-COP.3-SENS
He (i.e. a Western visitor to Balang Village during the Second World War) did not know much of the language, right? (RN: family/local history)

(8.103) *tɕʰəri* *ŋgə* ***mə-tɕʰan,*** *æ-ŋuə,* *tsələ.*
bone eat.INF **MOD.NEG-AUX.can.NPST.2** Q-COP cat
Cat! You cannot eat bones, right? (talking to a cat who is begging for food, but only bony meat is available) (OU)

With lower frequency in the source materials, a dynamic modal auxiliary *sko* (V1b) 'to manage, can, be able', is also attested. In denoting innate or physical ability, it is largely synonymous with *tɕʰa* discussed above. In (8.104), the snow on the road makes it potentially physically impossible to go to Dangling further northwest in Geshiza Valley during the winter. It is also identical by forming extended intransitive clauses (§7.3.2) with the extension argument coded using the dative case (8.105). Differing in its argument indexation properties, the modal auxiliary *sko* is nevertheless impersonal.

(8.104) *o* *ŋkʰæva=tʰə* *tɕʰæ-wo* *qa* *ɕə=nɔ*
INTERJ snow=TOP be.big.NPST.3-CAUS mountain go.INF=TOP.C

mə-sko*-vtɕʰæ.*
MOD.NEG-AUX.can.NPST-AUX.UNCERT
There is a lot of snow (in Dangling), so it might not be possible to go to the mountains (RC)

(8.105) ***vdə=ke*** ***mə-sko-ræ.***
ogre=DAT **MOD.NEG-can.NPST-SENS**
We cannot manage the ogre (that has emerged in Geshiza Valley). (RN: folktale)

Finally, non-elicited occurrences of the dynamic modal auxiliary *mə-grə* (1b) 'to be unable' that is always used in the negative are too few for accurate fine-tuning its semantic differentiation with the negated forms of the other three modal auxiliaries discussed above.

Modal auxiliary snə

The modal auxiliary *snə* (3b) 'to dare' describes a situation in which the subject has the courage to carry out an action (8.106, following page):

(8.106) *ŋa* *gəɕʰo* *ɕə* ***mə-snu-ræ***
1SG evening go.INF **MOD.NEG-AUX.dare.1SG-SENS**
I dare not to go (outside) in the evenings. (MEE)

Modal auxiliary vɕe

The modal auxiliary *vɕe* (V1b) has two uses. In addition to expressing deontic necessity 'to need, must, have to', it is also used in a desiderative sense 'to want, need'. The following tendency is visible in the distribution of the two meanings. First, the inclusion of a compliment triggers the deontic interpretation (8.107), desiderative semantics being more common in the remaining cases (8.108).

(8.107) *<janlupʰin>* *gæ-van* ***vɕe-ræ.***
TOPN DIR-go.SUPPL.1 **AUX.need.NPST-SENS**
We need to go to Yangliuping (seat of Geshiza Town). (RC)

(8.108) *<pənʂən>* *'ɣæ-ŋgæ* ***vɕe'*** *dæ-jə=gæ.*
basically ten-nine **want.NPST** PFV-say.3=MOD
Basically he said that he wants 190 000 yuan (for the car).

Some instances are nevertheless better interpreted against this general rule (8.109):

(8.109) *<pʰiəutsə>=tʰə* *dʐo~dʐo* ***vɕe-ræ,*** *<keʂan>=tʰə~tʰə.*
money=TOP RED.ADJZ~lot **need.NPST-SENS** town=TOP~RED
A lot of money is needed (for the life) in the town (i.e. Danba County Town. (RC)

Finally, as discussed in §11.2.2, the modal auxiliary has a reduced irregular stem *ɕe* used in negative contexts only (8.110):

(8.110) *stɕæn* ***mə-ɕe.***
afraid.NPST.2 **MOD.NEG-AUX.need.NPST**
You need not be afraid. (folktale)

Modal auxiliaries ŋi *and* mə-ske

The modal auxiliary *ŋi* (V1a) 'to be all right, acceptable, good' expresses the deontic acceptability or desirability of an action (8.111). When negated, it becomes very close to *mə-ske* (1b) 'should not', only used in the negative (8.112, 8.113).

(8.111) *<koŋʂe>=kʰa* *ndzo-ko* *dæ-ŋuə* *tɕʰa=tʰə* ***ŋi-ræ.***
commune=about stay-NMLZ:LOC PFV-COP.3 COND=TOP **be.good-SENS**

It will be good if there is a place for staying around the commune. (RC; see §2.8.1. *Incorporation into the PRC and modern times* for the meaning and continued use of the Chinese term *gōngshè* 公社 'commune' borrowed into Geshiza.)

(8.112) *mbila* *va=ke* *k^{h}o* ***mə-ŋi-ræ.***
snail pig=DAT give.INF **MOD.NEG-be.good-SENS**
It is not all right to give snails for pigs (to eat). (MEE; see §2.7.3. *Taboos* concerning the belief)

(8.113) *mbila* *va=ke* *k^{h}o* ***mə-ske-ræ.***
snail pig=DAT give.INF **MOD.NEG-AUX.should-SENS**
Snails should not be given to pigs (to eat). (ACC)

Like the copula *ŋuə* in its extended pragmatic function, the modal auxiliary *ŋi* is also used by the Geshiza to signal agreement in conversation (8.114):

(8.114) *ŋuə-ræ.* *ŋuə-ræ.* ***ŋi-ræ.*** ***ŋi-ræ.*** *xəu,* *xəu.*
COP.3-SENS COP.3-SENS **be.all.right-SENS** **be.all.right-SENS** be.good be.good
Yes. Yes. All right. All right. Good. Good. (RC: phone conversation)

Bound modal auxiliaries

Geshiza auxiliary system has two bound modal auxiliaries *-tɕ^{h}i* and *-vtɕ^{h}æ* that express deontic and epistemic modality, respectively:

Bound deontic auxiliary -tɕ^{h}i

The bound deontic auxiliary *-tɕ^{h}i* (glossing: AUX.CAN) expresses acceptability of something 'can, be all right' (8.115, 8.116). It is also used for softening commands (see §10.2.2. *Modifying the tone of a general imperative*). Sometimes, however, the auxiliary appears independently, such as in scenarios where the main verb hosts an enclitic (see example 11.33). In such cases, the main verb hosts the negator. In all, *-tɕ^{h}i* is not fully bound in all of its syntactic behaviour.

(8.115) *ɕ^{h}æskæn=læ* *gæ-ŋgən-**tɕ^{h}i.***
dried.meat=FOC IPFV-eat.2PL-**AUX.can**
It is fine for you to eat the dried meat (RN: folktale)

(8.116) *lmæ=nts^{h}e* *smæŋa* *xo=zɔ* *gæ-ɕoŋ-**tɕ^{h}i**-ræ=je.*
3=ASS.GEN girl DEM.LOC=only DIR-go.NPST.1-**AUX.CAN**-SENS=MOD
(On a trip to Dandong,) you can go (to stay) in their daughter's place. (RC)

Bound uncertainty auxiliary -vtɕʰæ

The bound uncertainty auxiliary *-vtɕʰæ* (glossing: AUX.UNCERT.; 8.117, 8.118) is similar to the uncertainty enclitic *=mdɔ* and and the probabilitative enclitic *=ba*, (see §8.6.5 for modal discourse enclitics), but it shows to be a verb by hosting evidential suffixes, such as *-ræ* for the sensory evidential: *-vtɕʰæ-ræ*. Since the evidential suffixes adjoin only verbs in Geshiza, it can consequently beyond doubt be classified as a bound auxiliary.

(8.117) *ɲi=zɔ* *vzə* *mə-tɕʰan-**vtɕʰæ**.*
2SG=only repair.INF MOD.NEG-AUX.can.NPST.2-**AUX.UNCERT**
You might not be able to repair it by yourself. (RN; chronicle)

(8.118) *æ-rgəu=tʰə* *lmæ=ɲu* *mi-v-dæ-**vtɕʰæ**=bɔ.*
one-CLF.general=TOP 3=PL.ERG NEG-INV-do.3- **AUX.UNCERT**=MOD
They might not do (i.e. rent) one (horse) for two people. (RC)

8.6.5. Modal discourse enclitics

Geshiza has modal discourse enclitics that convey the addressee information concerning the speaker's attitude, emotional state, and certainty vis-à-vis knowledge expressed in the utterance. Cross-linguistically, the term '(sentence-)final particle' is frequently encountered in similar contexts when discussing languages of East Asian languages, such as Chinese (e.g. Li and Thompson 1981: 238-318). The term is nevertheless problematic in Geshiza. First, as a word class, particles have generally been used as graveyards for lexemes difficult to classify otherwise, to the point of having become less meaningful a term. Consequently, this grammar lacks a posited class of particles. Second, while with default word order, phrase or sentence-final placement of the formatives takes place, right dislocation (see §13.7) common in everyday conversation often leaves them in a non-final position. The term 'modal discourse enclitic' (glossing: MOD) is consequently adopted here as a more accurate and descriptive term in Geshiza. It highlights three dimensions of the formatives: they carry modal semantics, play a focal role in discourse, and behave as enclitics morphosyntactically.

All Geshiza modal discourse enclitics are monosyllabic, which reflects a typological tendency for shortness in corresponding elements in the world's languages. They occur with very high frequency and adjoin the verb typically placed at the end of the clause. If no verb is present, i.e. in an adverbial exclamation, non-verbal word classes also host the enclitics. Modal discourse enclitics are paradigmatic in the sense that only one may appear at a given time. The auto-interrogative *=goŋ* is exceptional, since it occurs at a different syntactic slot and may be combined with the others. Table 8.12 replicating information from chapter 4 for the convenience of the reader lists 13 most prominent modal discourse enclitics encountered in the source materials, discussed in more detail in turn. The listing remains partial, and further Geshiza research will undoubtedly posit few additional rarer modal discourse enclitics to the inventory.

Table 8.12. Geshiza modal discourse enclitics

Category	Enclitic	Function
Epistemic certainty	*=ba*	probabilitative
	=mdɔ	uncertainty
Interrogative	*=goŋ*	auto-interrogative
	=za	standard interrogative
	=jɔ	interrogative
Assertion	*=bɔ*	assertive: standard
	=mɔ	assertive: weak
	=m(d)e	assertive: strong
	=mɲoŋ	assertive
	=gæ	emphatic assertive
Exclamative	*=ja*	exclamative
	=je	exclamative, aggressive
	=lu	emotive-exclamative

Epistemic certainty: =ba *and* =mdɔ

The probabilitative enclitic *=ba* 'probably' functions as an indicator of uncertainty when the speaker is not completely sure of the veracity of a statement (8.119, 8.120). The enclitic is probably a borrowing from Tibetan, exhibiting a regional trend. A Tibetan probabilitative discourse particle *ba* has been borrowed into other languages of the region, see Sandman (2016: 173) for an example in Wutun. The probabilitative enclitic follows a prolonged and falling intonation pattern discussed in §3.6.2.3.

(8.119) *tʰə* *bɔvə-væ* *dæ-ŋuə=**ba.***
DEM TOPN-NAT PFV-COP.3=**MOD**
He was probably from Bawang. (RN: personal history)

(8.120) *tɕʰu* *braŋgu* *dʑi-me=be* *dɔ-məmə=**ba.***
CONJ TOPN EXV-NMLZ:S=too PFV-discuss.3=**MOD**
People in Danba County Town have probably discussed (the issue). (RC)

Sharing the functional domain of epistemic certainty, the uncertainty enclitic *=mdɔ* 'maybe' is similar to *=ba*. The uncertainty enclitic, however, encodes a higher level of uncertainty. In (8.121), the speaking trader accuses his partner of eating secretly a piece of meat, but lacks certainty in his statement. In a cross-linguistic study, Boye's (2012) introduces a scale of epistemic support divided into full, partial, and neutral support. Along the scale *=ba* expresses partial and *=mdɔ* neutral support, Geshiza lacking a formal encoding for full support.

(8.121) *ʻɲu* *rkə* *dæ-vi=**mdɔ**ʼ* *dæ-jə=ræ...*
2SG.ERG stealing PFV-do.2SG=**MOD** PFV-say.3=LNK…
You might have stolen (the piece of meat, but I am not sure of that), he said. (RN: folktale)

Interrogation =goŋ, =za, =jɔ
The interrogative enclitics are discussed in detail in §10.1.2.

Assertion =bɔ, =mɔ, =m(d)e, =mɲoŋ, *and* =gæ
The modal discourse enclitic *=bɔ* strengthens an assertion (8.122) or a command (8.123). In comparison, *=mɔ* shows weaker assertion (8.124) and has a softening effect on an imperative (8.125):

(8.122) *e* *we=t^{h}ə* *tɕ^{h}a~tɕ^{h}a=nɔ* *də-ræ=**bɔ.***
DEM house=TOP RED~up=TOP.C EXV-SENS=**MOD**
That house is really high up there! (UA)

.

(8.123) *ɲi=t^{h}ə* *æ-ɕ^{h}u* *næ-ne=**bɔ.***
2SG=TOP one-CLF-moment IMP-rest.2=**MOD**
Rest for a moment! (RN: chronicle)

(8.124) *bəʑə* *rjɛ-ko* *zə-tje=**mɔ.***
son eight-CLF.year PROSP-become.NPST.3=**MOD**
(Our) son is about to become eight. (RC)

(9.125) *<tiæntʂ^{h}e>* *æ-lə* *gæ-rən=**mɔ,*** *tiæntʂ^{h}e.*
electric.bike one-CLF.INDEF IMP.buy.2PL=**MOD** electric.bike
Buy an electric bike! (RC)

The discourse enclitic *=bɔ* is often used in replies to questions when the speakers want to emphasise their answer (8.126):

(8.126) *xaræ* *<p^{h}iəutsə>* *ntɕ^{h}ue=jɔ.*
but money have.NPST.2SG=Q
But do you have the money? (speaker A)

<p^{h}iəutsə> *mi-ntɕ^{h}o=**bɔ.***
money NEG-have.NPST.1SG=**MOD**
No, I don't have the money. (RC; speaker B)

The modal discourse enclitic *me ~ mde* is used for strong assertions (8.127). When used with imperatives, it often carries force stronger than that of *=bɔ* (8.128). In addition, the enclitic is used for utterances the speaker judges axiomatic or self-evident (8.129, 8.130). Some younger speakers prefer the form with a simplified consonant cluster.

(8.127) *ŋa* *ɕoŋ* **=*mde.***
1SG go.NPST.1=**MOD**
I am going (for good)! (RN: folktale)

(8.128) *ja* *tʰə* *næ-ŋgi* **=*mde.***
INTER DEM IMP-eat.2SG=**MOD**
Eat that! (RN: folktale)

(8.129) *leska* *dæ-rkʰa* *tɕʰa* *wɕi* *lxwa* **=*me.***
work PFV-be.tiring.PST COND sweat appear=**MOD**
If working hard, one gets sweaty. (MEE)

(8.130) *vdzi* *ləu* *dʑan-me* **=*tʰə*** *mdʑurtenme* *ŋoŋ-ræ* **=*me.***
person where EXV.1PL-NMLZ:S =TOP human.being COP.3-SENS=**MOD**
No matter where, we are all human beings. (MEE)

The modal discourse enclitic *=gæ* expresses strong assertion (8.131). It is never attested with imperatives and proposals in the source materials. The function of the enclitic also extends to the range of information structure: on some occasions, the information that the speaker asserts with *=gæ* is believed to be new for the listener (see §9.2.6 for a dedicated suffix of engagement). In (8.132), the speaker explains a religious ritual to the author for the first time:

(8.131) *ɲoŋ* *mə-ntʰjəu-ræ* **=*gæ.***
ear MOD.NEG-hear.NPST.3-SENS=**MOD**
His ears do not hear! (i.e. He is deaf.) (UA)

(8.132) *ʑikʰro* **=*tʰə*~*tʰə*** *ɑ̟to* **=*je*** *lmə* *ŋuə-ræ* **=*gæ.***
ʑikʰro.festival=TOP~RED prayer.recital=**GEN** name COP.3-SENS=**MOD**
'*ʑikʰro*' is a name for a prayer recital meeting. (RN; see §2.4.1 for the *ʑikʰro* festival and 2.7.1 for the *ɑ̟to* ritual)

The modal discourse enclitic *=mŋoŋ* occurs typically in folktales. It is tentatively classified as assertive along the primary divisions posited here, but since it commonly cooccurs with tag questions (see §10.1.3), its assertive power is relatively weak (8.133, following page):

(8.133) *<tɕʰotɕʰo>* *snælŋa* ***dʑi-mɲoŋ,*** *æ-ŋuə-ræ.*
little.bird five.kinds EXV.3=**MOD** Q-COP.3-SENS
There are many kinds of little birds, right? (RN: folktale; *snælŋa* used as a figure of speech for many distinct kinds)

Exclamatives =ja, =je *and* =lu
Geshiza has three exclamative modal discourse enclitics. First, *=ja* is on rare occasions used for reinforcing commands (8.134):

(8.134) *dæ-sʰe=**ja.*** *dæ-jin=**ja.***
PFV-know.2SG=**MOD** IMP-say.2=**MOD**
Tell (me) if you know (the answer)! (RC)

The modal discourse enclitic *=je* has two interlinked functions, exclamative and aggressive, depending on the tone used and discourse context. First, in a normal speaking tone, it is used in an exclamative way to emphasise a statement. For instance, in (8.135), the speaker who had worked as a Tibetan and Chinese teacher makes it known that he has one story book containing *a khu ston pa* stories (see §2.7.4). The exclamative use does not trigger an aggressive interpretation.

(8.135) *akə-stæmba=je=nɔ* *dʑədə* *æ-<pən>* *ntɕʰo=**je.***
PN-PN=GEN=TOP.C book one-CLF.book have.NPST.1SG=**MOD**
I have one book of *a khu ston pa* stories! (RC)

Second, in an aggressive tone, *=je* is also used to make imperatives stronger, e.g. when addressing misbehaving children. In (8.136), the speaker orders his granddaughter who is about to climb through the window to get down and sit:

(8.136) *kʰætɕʰi* *næ-bəun=ræ* *wə-ndzon=**je.***
down IMP-descend.2=LNK IMP-sit.2=**MOD**
Get down and sit down! (OU)

In rapid speech, *=je* fusions with its host, becoming *e* and replacing the original coda vowel. To illustrate, in (8.137), the underlying form of *ran-re* is *ran-ræ=je:*

(8.137) *bɔlə* *bəvi=nɔ* *bɔlə* *ran-**re.***
like.that this.year=TOP.C like.that find.1PL-**SENS.MOD**
We are able to earn that much this year!? (speaker A)

ŋa=tʰə *bətʰə* *g-ə-ntsʰu-ræ=mɔ.*
1SG=TOP like.that PREF-NACT-think.NPST.3-SENS=MOD
I think like that. (RC; speaker B)

The exclamative enclitic *=lu* expresses a strong emotional stance from the speaker, also describable as evaluative attitude. The extremity rather than the nature of the evaluative attitude matters: the strong emotion expressed by the speaker can be both positive (9.138) and negative (9.139). Since the largely spontaneous emotive reaction often reflects an unprepared mind, the emotive enclitic also carries a mirative overtone in some contexts.

(8.138) *ŋa* *ɲi* *smæn=**lu.***
1SG 2SG like.1=**MOD**
I like you. (MEE)

(8.139) *wbəzbri* *tɕʰæ=**lu.***
sunlight be.big.NPST.3=**MOD**
The sunlight is very bright. (UA)

8.6.6. Modal adverbs

In addition to grammaticalised expressions of modality and modal auxiliaries introduced above, Geshiza avails of modal adverbs as a lexical means of expressing modality. The following adverbs indicate epistemic possibility: *æmæ* 'maybe'; *kʰonen* 'maybe'; *ʑma* 'really, certainly'. In addition, the adverb *piɕy* 'necessarily' originating from Chinese expresses deontic necessity.

The adverb *æmæ* 'maybe, perhaps' expresses doubt or uncertainty concerning a proposition (8.140). It is sometimes replaced by the Chinese loanword *kʰonen* 'maybe, perhaps' < Ch. *kěnéng* 可能 'maybe, perhaps' (8.141) or even cooccurs with it (8.142). Example (9.142) further shows that these modal adverbs are semantically very close to the probabilitative discourse enclitic *=ba* discussed above in §8.6.5.

(8.140) *bəvi=ræ* *bəvi* *rtso=ke* *<ɕaɕæn>* ***æmæ*** *tje-ræ.*
this.year=LNK this.year winter=DAT lower.limit **maybe** reach.NPST.3-SENS
The limit will maybe be reached this winter. (RC)

(8.141) *<ʈʂʰetsə>=læ* *sʰo* ***<kʰonen>*** *ma-me* *ŋuə-ræ.*
car=TOP more **maybe** NEG.EXV-NMLZ:S COP.3-SENS
There were maybe no cars either. (after discussing the lack of airplanes in the past) (RN: family history)

(8.142) *<kʰonen>* *ɛ* *<wu-tɕi>* *<niæn>,* *<wu-tɕi>*
maybe INTERJ fifty-several year fifty-several

<niæn> ***æmæ*** *ŋuə-ræ.* *<wu-tɕi>* *<niæn>* *skæra*
year **maybe** COP.3-SENS fifty-several year around

dæ-ŋuə=ba.
COP.3-SENS=MOD
Perhaps, this was in the 50s, maybe in the 50s. It was approximately in the 50s, probably. (discussing an event in the past the speaker is unable to date exactly) (RN: local history)

Contrasting with *æmæ* and *kʰonen*, *ạma* 'really, certainly' indicates epistemic certainty and affirmation (8.143). It possibly originates from the Tibetan *ngo ma* 'real(ly), true(ly)':

(8.143) *'næ-ɕin* *rdzạlpə=ke=ræ* *xaræ* *"ŋa* ***ạma***
IMP-go.NPST.2 chieftain=DAT=LNK PART 1SG **really**

næ-tjan."' […]
DIR-reach.NPST.1 […]
'Go! (Tell) the chieftain that I will really come.' (RN: folktale)

The adverb *piɕy* 'necessarily' expresses strong deontic necessity (8.144). It originates from the Chinese *bìxū* 必须 'to have to, necessarily':

(8.144) *ŋa* *<piɕy>* *<ʈsʰetsə>* ***ru*** ***vɕe.***
1SG necessarily car **buy.1SG** **AUX.need.NPST**
I necessarily need to buy a car. (RC)

8.7. Summary

This chapter discussed orientation and tense-aspect-mood that are intertwined in Geshiza. The language shows a complex system of verbal prefixation that is used for marking orientation, aspect, and mood. The orientational system with two axes and four basic values uses Geshiza River flowing through the Geshiza homeland as the reference point. The language. In contrast, the binary tense system of past and non-past in the language is simple. Reality status in Geshiza is divided into realis and irrealis. The former comprises the categories of indicative, non-actual realis, and interrogative, while the latter subbranches into imperatives and the optative. Geshiza has modal auxiliaries and a wide range of modal discourse enclitics adjoining the predicate verb.

CHAPTER NINE
Evidentiality and engagement

This chapter focuses on evidentiality and engagement in Geshiza. Both domains have grammaticalised in the language where they build a complex epistemic system. The chapter is divided into four major parts: introduction (§9.1); marking of evidentiality and engagement (§9.2); evidentiality and other grammatical categories (§9.3); and other uses of evidentiality (§9.4). A summary is provided at the end (§9.5).

Evidentiality refers to grammaticalised source of information. In addition to numerous language families in the Americas, the Trans-Himalayan languages are known for particularly complex evidential systems (Aikhenvald & LaPolla 2007: 4). Most languages in the Ethnic Corridor of southwestern China (see §1.2.1) possess elaborate systems of grammaticalised evidentiality marking with multiple evidentiality markers, for instance Qiang (see LaPolla 2003). Like other surveyed Horpa lects (e.g. Jacques et al. 2015 on Stau), Geshiza also exhibits an elaborate grammaticalised evidential system.

As a distinct, but related grammatical category, Geshiza also shows grammatical manifestations of engagement, namely grammaticalised intersubjectivity defined as encoding of the 'relative accessibility of an entity or state of affairs to the speaker and addressee' (Evans, Bergqvist, and San Roque 2017). Both evidential and engagement morphology occur in the same epistemic slot 3 of the verbal template (see §4.3.2), and both grammatical categories are clearly related. For these reasons, I discuss them together in this chapter.

Research on the epistemic systems of Trans-Himalayan languages is progressing rapidly, reflecting an ongoing 'epistemic boom' in linguistics. At the same time, even elementary concepts with their scope and validity, such as evidentiality, mirativity, conjunct-disjunct, egophoricity, etc., are heavily debated. My attempt herein is to sketch the epistemic system of Geshiza as neutrally as possible vis-à-vis the ongoing debates. After the dust settles, future research will undoubtedly shed more light on this complex and fascinating system.

9.1. Introduction

This section describes Geshiza speakers' view on interpersonal epistemic relations, the understanding of which is fundamental for an analysis of the evidential system. At the core of this notion lies accessibility of the mind, namely whether epistemic access is possible outside the ego. Table 9.1. on the following page illustrates how person, accessibility of the mind, preferred method of discourse, and the presence of evidential marking correlate in Geshiza.

Table 9.1. Person and accessibility of the mind in Geshiza

Person	Mind	Canonical speech acts	Evidential marking
1	generally accessible	declarative speech acts	evidential marking often absent presence of evidential marking carries a special effect
2	generally inaccessible	non-declarative speech acts	evidentiality often absent in non-declarative speech acts, often present in declarative speech acts
3	generally inaccessible	declarative and non-declarative speech acts	presence of evidential marking frequent, absence carries a special effect

First person

Geshiza speakers' concept of the self differentiates between the Self and the Other. Evidentiality plays an important, though not the only part in the linguistic manifestation of this distinction. Different personal referents are frequently discussed using different strategies. Utterances with first-person subjects canonically take an affirmative declarative form without overt evidential marking (9.1; see §9.2.1 for the unmarked ego-oriented evidential). The first person has generally direct, privileged access to the sources of knowledge that they make statements about, including feelings, intents, and consciously remembered past experiences. In cases when this is not the case (e.g. remembering one's own birth,) the first person must signal his or her lowered epistemic authority through use overt evidential forms. Consequently, the presence of an evidential marker carries a special effect in the context of the first person. This is discussed in more detail in §9.3.5 dedicated to the so-called first person effect.

(9.1) First person with privileged access to sources of knowledge without overtly marked evidentials in use:

ŋa	*dəva=ɲə*	*æ-pəu*	*gæ-ru.*
1SG	tobacco=PL	one-CLF.packs	PFV-buy.1SG

I bought a pack of cigarettes. (RN: chronicle)

Second person

In contrast, utterances with second person subjects tend to appear in non-declarative speech act forms (i.e. questions and commands; see chapter 10) devoid of evidentiality marking (9.2., following page). These forms are characterised by the viewpoint outside the second person's ego. In other words, the second person is ordered, prohibited from acting, or questioned by the speaker. Since second persons constitute an inaccessible unit of consciousness, gaining direct access to the sources of their knowledge or having an epistemic authority to discuss them with

declarative assertions is rare. Against this backdrop, when a speaker 'intrudes' into the 'epistemic territory' of an addressee, evidentials are commonly used (9.3), except in cases that can be discussed without gaining access to the addressee's mind, e.g. a person's witnessed physical location (9.4; notice nevertheless the use of a tag question that softens the affirmation):

(9.2) Speaker's non-declarative speech act without entering the addressee's territory of information and no evidential marking:
ɲi=zɔ *dʑin=jɔ.*
2SG=only EXV.2=Q
Are you alone (at home)? (OU)

(9.3) Speaker entering the addressee's epistemic territory with the sensory evidential:
ɲi *nɕʰæra-ko* *se=nɔ* *mə-se-ræ=mɔ.*
2SG play-NMLZ:LOC know.2SG=TOP.C MOD.NEG-know.2SG-SENS=MOD
You have no idea about places for having fun! (RC)

(9.4) Speaker making a statement concerning the addressee without entering his/her epistemic territory:
ɲi=me *dæ-dʑin=gæ,* *æ-ŋuə.*
2SG=too PFV-EXV.3=MOD Q-COP.3
You were there too, right? (RC)

Even when indirect access to knowledge is possible, such as when witnessing the second person eating, a declarative statement like 'You are eating' would hardly provide any new information to the conversation. As a consequence, such declarative statements with little if any contribution are rare in Geshiza. Also, in the second person, using declarative sentences concerning knowledge that inherently pertains to the Self and cannot be inferred, such real motives and feelings, is culturally inappropriate (e.g. 'You miss your home').

Third person

The third person is discussed both with direct and indirect speech acts. Evidential marking is frequently found with third person subjects. Similar to the second person scenario, the speaker cannot have direct access to the sources of knowledge, such as the feelings, thoughts, or motives of a third person, since this would require nothing less than the link of consciousness between the Self and the Other. Consequently, the non-direct nature of those statements must be indicated with an evidential suffix, the source of information being, for instance, inferring or reporting (9.5., following page). As illustrated later in this chapter, a perceived strong link between ego and the third person, such as a parent-child relationship, occasionally allows for the omission of evidential marking in this context.

(9.5) Speaker inferring concerning the third person:

joŋʤ̪oŋ=wo	*wərja-ts^{h}ɛ=jə*	*æ-nts^{h}æ*	*dæ-və-s^{h}i.*
PN=ERG	chicken-dish=PL	one-CLF.little.bit	PFV.LV:do.3-IFR

joŋʤ̪oŋ cooked a bit of a chicken dish (RN: chronicle).

9.2. Marking of evidentiality and engagement

This section introduces all of the evidential and engagement suffixes present in Geshiza: unmarked ego-oriented (§9.2.1); sensory (§9.2.2); inferential (§9.2.3), reportative (§9.2.4); quotative (§9.2.5); non-shared information (§9.2.6); and an epistemic suffix requiring further analysis (§9.2.7). Table 9.2 presents a summary of the resulting epistemic system. Evidentiality and engagement are grammatical categories in Geshiza encoded by paradigmatic suffixes at slot 3 in the verbal template (see §4.3.2). Other ways for expressing evidentiality-like meanings are discussed briefly at the end of the section (§9.2.8).

Table 9.2. Summary of the epistemic system in Geshiza

Category	Subcategory	Suffix	Domain encoded
Evidentiality	ego-oriented	non-marked	ego's direct participation
	sensory	*-ræ*	sensory perception
	inferential	*-s^{h}i*	inference
	reportative	*-jə*	hearsay
	quotative	*-wo*	quoted speech
Engagement	non-shared information	*-go*	non-shared information
	unclear	*-mə*	unclear

Evidentiality in Geshiza is an obligatory grammatical category, just like tense-aspect-mood marking on verbs. Nevertheless, not every clause is necessary formally marked for evidentiality, both the appearance and non-appearance of evidentiality are being conditioned by the language's grammar and the pragmatics of discourse. As in most languages, the scope of the evidentials extends over a clause. Evidentiality is expressed morphologically by means of verbal suffixes of the syllabic shape CV. The evidential suffixes form a single grammatical system, evidential marking always appearing after the verb root and personal endings.

9.2.1. Ego-oriented (unmarked)

An unmarked form (no glossing) stands on equal ground in a paradigmatic relationship with the marked evidentials in Geshiza and should not be interpreted as deletion of one of the three morphologically marked evidentials. First person non-past usually appears with no overt evidential marking (9.6, following page):

(9.6) *'ɕoŋ=za'* *dæ-joŋ.* *'ɕoŋ'* *jə.*
go.NPST.1=Q PFV-say.1 **go.NPST.1** say.3
I asked him 'Shall we go?' He said, 'Yes.') (RN: chronicle)

Knowledge encoded by the form pertains to the speaker's ego, often by means of direct personal experience and conscious participation. In previous research, various labels have applied to similar evidential categories in other languages, including 'performative' (Oswalt 1986), 'personal' (Hill & Gawne 2017: 19), and 'egophoric' (Tournadre 2008; not to be confused with 'egophoricity'). The term 'ego-oriented' adopted herein emphasises the directness of the information source, prototypically the ego itself. Egophoric evidential, a fitting term *per se,* is avoided herein, since egophoric is a key concept in egophoricity research and thus easily confused. The relationship between evidentiality and egophoricity remains debated. In this grammar, I follow the approach of Gawne (2017: 83-84): egophoric evidentials must be terminologically distinguished from egophoricity; also the presence of egophoric evidential in a language does not automatically imply that egophoricity is also present.

The scope of predications compatible with the ego-oriented evidential includes both states (9.7) and actions (9.8), which consequently exceed the narrow scope of participatory and performative evidentiality found in some languages of Papua New Guinea and North America, respectively. In all, ego-oriented evidentiality in Geshiza resembles closely the general picture of egophoric evidentials of Tibetic languages (see Gawne 2017 for an overview).

(9.7) *ɾŋapa* ***ŋoŋ.***
hunter **COP.1**
I am a hunter. (RN: folktale)

(9.8) *skærva* *dæ-van* *ɲo* *ʈʂəu=ɲə* ***dæ-roŋ.***
circumambulation PFV-LV:do.1PL after picture=PL **PFV-LV:hit.1PL**
After circumambulating, we took pictures. (RN: chronicle/ethnographic description; see §2.7.1. *Pilgrimage* concerning circumambulation and pilgrimages among the Geshiza)

Many scenarios of ego-oriented evidentiality in Geshiza imply volitional action the speaker has control over and carries with intent. Consequently, uncontrollable or involitional action, such as seeing a dream (9.9) or giving birth to a child (9.10), are generally not expressed with the unmarked evidential (see §9.3.5 for the first person effect).

(9.9) *ŋa* *mæ(gə)*[71] *gəɕʰo* *ntsʰælma* *dæ-zlu-**sʰi**.*
1SG yesterday evening dream PFV-dream.1SG-**IFR**
I saw a dream the last night. (RN: report)

(9.10) *xe* *ɲo* *tɕʰu* *lŋa* *wne* *dæ-ʑəu-**sʰi**.*
DEM.GEN after CONJ child two PFV-give.birth.1SG-**IFR**
After that I gave birth to two children. (RN: personal history)

Extended use of the ego-oriented evidential

Ego-oriented evidentials are known to be applicable to non-speakers under strict conditions, such as when narrating about a state or habitual behaviour of a person or animal the speaker has intimate knowledge about (Sun 2018: 55-56) This occurs in Geshiza as well. When the speaker describes a state or habitual behaviour of something or someone they have deep knowledge about and with what or whom a strong bond exists, the unmarked evidential can be used. Example (9.11) concerns the date of the speaker's child's birthday. Such knowledge, even though describing something outside the speaker's ego, must be deeply assimilated, thus requiring no sensory or inferential evidential coding, for instance. Also, as can be seen, in such contexts, the speaker need not be overtly expressed as 'present' in the clause.

(9.11) […] *ŋæ=ntsʰe* *lŋa=je* *<sənrə>=tʰə* *bəsni* ***dæ-ŋuə=gæ***
[…] 1=ASS.GEN child=GEN birthday=TOP today **PFV-COP.3**=MOD

æ-ŋuə.
Q-COP.3
Yesterday, on that day, it was our child's birthday, right? (RC)

Third person can be described with the ego-oriented evidential when the speaker has directly volitionally become involved or participated in the described event and has thus direct knowledge about it. In (9.12), the speaker himself was present in the meeting that was organised in Balang Village.

(9.12) *ŋæ=ŋi* *xo* *kʰɛxui* ***dæ-və.***
1=PL.GEN DEM.GEN meeting **PFV-LV:do.3**
Our place (i.e. our village) had a meeting. (RN: procedure/chronicle)

[71] The full form before haplology (see §3.4.7) in *mæ**gə gə**ɕʰo* is given in parenthesis.

9.2.2. Sensory evidential *-ræ*

The sensory evidential *-ræ* (glossing: SENS) expresses that the information is being acquired through sensory perception with one or more of the five senses. It requires the non-past stem of the verb, while the past tense is incompatible with it. Importantly, the sensory evidential, cannot only be seen as a visual evidential, since it in addition to vision (9.13), information coded by it can also be acquired through hearing (9.14), taste-smell (9.15) and sensation (9.16). Notwithstanding, due to the central role of visual perception, the sensory evidential frequently codes a visual information source.

(9.13) *zdoma* *æ-nts^{h}æ* *ma-**ræ**.*
cloud one.CLF.little.bit NEG.EXV-**SENS**
There are no clouds at all. (UA)

(9.14) *'<papa>* *<mama>* *næ-ndʑæl=mɔ'* *jə-**ræ**.*
father mother PFV-thank.you=MOD say.3-**SENS**
'Thank you, father and mother,' (the children) say. (RN: personal history)

(9.15) *ts^{h}ə* *æ-no-**ræ**.*
salt Q-smell/taste-**SENS**
Is there enough salt in the food? (UA)

(9.16) *æ-rk^{h}o-**ræ**.*
Q-be.cold.NPST-**SENS**
Is it cold? (i.e. Do you feel cold?)

*mi-rk^{h}o-**ræ**.*
NEG-be.cold.NPST-**SENS**
It is not cold. (i.e. I do not feel cold.) (speaker B; OU)

Endophatic processes

The range of the sensory evidential also covers what has been termed endophatic processes (see Tournadre 1996a: 226; 1996b: 206-207 for the origin of the term and the concept's manifestation in Tibetic languages), namely the internal sensations of a speaker that remain directly unobservable to outsiders. In Geshiza, e.g. pain (9.17, following page) and internal feelings with emotions (9.18) qualify for endophatic processes commonly coded with the sensory evidential. It should be noted that many endophatic processes are also expressed with the inferential evidential in Geshiza (see §9.2.3). The issue is further discussed in the context of the first person effect in §9.3.5.

(9.17) *lva* *ŋo-**ræ**.*
shoulder be.painful.3-**SENS**
(My) houlders are aching. (MEE)

(9.18) *ŋa* *zdupa* *tɕʰoŋ-**ræ**.*
1SG pity feel.emotion.NPST.1-**SENS**
I feel lpity (for him/her/it/them). (MEE)

Sensory evidential and generic knowledge

The sensory evidential also signals generic knowledge as the source of information (9.19, 9.20). Such generic knowledge regarding the world, e.g. that cats have tails, is supposed to be shared by everyone, in contrast to personal experiences for which asymmetric access to information exists. At the same time, it should be noted that due to its nature, generic knowledge is often self-evident and thus infrequently expressed in natural discourse without a pragmatic purpose.

(9.19) *mæ* *dæ-qi* *tɕʰa* *be* *lxua-**ræ**.*
rain PFV-rain.heavily.PST COND flood appear.3-**SENS**
If the rain is strong, a flood occurs. (MEE)

(9.20) *rŋa* *və* *tɕʰa* *mbəzə* *vɕe-**ræ**.*
hunting LV:do.3 when gunpowder need.NPST-**SENS**
Gunpowder is needed when hunting. (MEE)

Distinguishing between the sensory evidential and the general linker =ræ

The sensory evidential suffix shares its phonological form with the additive conjunction and general linker =*ræ* (see §4.10). For this reason, with the non-past tense, sometimes only the discourse context provides clues as to whether the phonological shape *ræ* should be interpreted as the sensory evidential or the linker. To illustrate, in (9.21), the speaker refers to her own controllable action of going (*ɕoŋ*), for which reason the following *ræ* should be interpreted as the linker coordinating two clauses, not as the sensory evidential generally not used for the subject intentionally instigating an action that remains under his or her control, in which scenario the unmarked ego-oriented evidential is used (see §9.2.1).

(9.21) *qʰæsʰi=tʰə* *ŋæ=næ=tʰə* *ŋa=læ* *leska* *ɕoŋ=**ræ*** *ɲi=læ*
tomorrow=TOP 1=DU=TOP 1SG=FOC work go.NPST=**LNK** 2SG=FOC

<tʂʰetsə> *rdʑu* *vɕe-ræ.*
car drive.INF AUX.need.NPST-SENS
Tomorrow, as for the two of use, I will go to work and you need to drive the car. (RC)

9.2.3. Inferential evidential *-sʰi*

Inferential evidential is marked by the suffix *-sʰi* (glossing: IFR) in Geshiza. If the suffix does not finish the clause, but precedes another epistemic suffix, it undergoes vowel reduction, changing its form into *-sʰə-*. As its primary function, the inferential evidential enclitic marks inference from information obtained through senses, such as visible results and traces (9.22, 9.23):

(9.22) *ʑə* *noŋ* *wrə* *dæ-lvo-**sʰi**.*
field in water PFV-freeze-**IFR**
The water on the field has frozen. (The speaker sees the distant fields.) (UA)

(9.23) *jovə=tɕe* *zdi* *dæ-v-kuæ-**sʰi**.*
medial.riverside.LOC=INSTR wall PFV-INV-cut.PST.3-**IFR**
It (the cow) broke a wall on the river side. (The speaker sees the remains of a fence broken by the cow.) (RC)

Sometimes the speakers have no direct sensory data due to non-participation in the event they are describing. Even when the speaker has participated in an event, the lack of direct sensory data and a resulting memory require are marked with the inferential evidential in a secondary function (see §9.3.5 for the first person effect). For instance, when reporting their birth, Geshiza speakers use the inferential evidential instead of the evidentially unmarked perfective verb form (9.24, 9.25).

(9.24) *ŋa* *məsni* *dæ-nʑoŋ-**sʰi**.*
1SG today PFV-be.born.1-**IFR**
I was born on this day. (lit. I was born today.) (MEE)

(9.25) **ŋa* *məsni* *dæ-nʑoŋ.*
1SG today PFV-born.
Intended meaning: I was born on this day. (REJ; see 9.24)

Historical remark

As illustrated by the examples above, the inferential evidential always co-occurs with the past tense, if a verb differentiates between the binary tenses (see §8.4). This co-occurrence can be investigated diachronically. A suffix *-s is usually reconstructed in Proto-Trans-Himalayan. This suffix is reflected in many contemporary Trans-Himalayan languages as TAM markers, conjunctions, and nominalisers (Huang 1996: 30). The suffix *-s may have evolved into two grammatical morphemes in Geshiza: the inferential evidential discussed herein and the past tense S/A argument nominaliser discussed in §62.3.1, illustrated in (9.26, following page):

(9.26) PTH *-s → Geshiza nominaliser *-s^{h}i*
PTH *-s → Geshiza past inferential evidential *-s^{h}i*

This neat explanation nevertheless faces a major challenge. As pointed out by Jacques (personal communication, September 11 2019), the PTH *-s should not remain preserved in Horpa and Tangut, except possibly as vowel alternations. Consequently, Geshiza *-s^{h}i* might be a later grammaticalisation not related to the PTH *-s, but showing merely fortuitous resemblance. As in many other topics of Horpa studies, further historical-comparative work is needed.

9.2.4. Reportative evidential *-jə*

In the reportative evidential expressed with the suffix *-jə,* (glossing: REP), the knowledge has been received from other people, but the information source remains unspecified (9.27, 9.28; see §9.4.2 for evidential stacking in both examples). By using the reportative, the speaker thus signals that the original source of information is outside him- or herself and unspecified (cf. the quotative in §9.2.5). If necessary, it can be translated as 'it is said; they say; I/we have heard'. Since this occasionally leads to long and unnatural English translations, this is not constantly followed in the present grammar.

(9.27) *bəsni* *p^{h}jo-ræ-**jə**.*
today see.off.NPST-SENS-**REP**
It is said that the seeing-off (i.e., funeral) is today. (RN: procedure)

(9.28) *mətustɕe* *jə-me* *æ-ɣi* *dæ-dʑi-s^{h}i* *ŋuə-ræ-**jə**.*
PN say-NMLZ:P one-CLF.person PFV-EXV.3-NMLZ COP.3-SENS-**REP**
It is said that there was a person called *mətustɕe*. (RN: folktale; see *Appendix IV: List of prominent figures* for *mətustɕe* in Geshiza folklore)

In addition to the common third person reportative, reportative evidentiality is also compatible with the second person (9.29):

(9.29) *ɲi* *vo=læ* *mi-t^{h}i-ræ-**jə**.*
2SG alcohol=FOC NEG-drink.NPST.2SG-SENS-**REP**
It is said that you don't drink alcohol.

Even though the reportative appears with second and third person participants, but indicates the information source of the narrator, i.e. the first person. Also, the reportative does not distinguish between second- and thirdhand information. Unlike in some other languages,

e.g. Estonian (Skribnik and Kehayov 2018: 534), where the reportative carries epistemic overtones of doubt or uncertainty, the Geshiza reportative is neutral in terms of epistemic support and merely indicates the source of knowledge as reported, i.e. not personally attested. Geshiza speakers interpret instances of *-jə* in the first person context as reported speech (see §12.4.4).

Historical remark

Historically, the reportative suffix originates from the verb *jə* (V2b) 'to say' while the construction itself results from a grammaticalised reported speech construction in which the originally independent reportative verb *jə* has been reanalysed as an evidential suffix. Of all the evidential markers in Geshiza, the reportative appears to be the newest one. Its origin can still be seen in reported speech constructions that take the form [quotation]-*jə* (9.30):

(9.30) [*lməu* *vo* *v-t^{h}i*] *jə*
3.ERG alcohol inv-rink.NPST.3 say.3
'S/he$_{i}$ drinks alcohol,' he/she$_{j}$ said.

Even though the reportative marker originates from the verb *jə* used as a marker of quoted speech, the two constructions must be considered separate. The pragmatic context or lexical choice impart the information source in quoted speech, but the source remains opaque in the reportative. Furthermore, indirect speech and the reportative occasionally cooccur, which offers a strong argument for keeping the two notions separate. In (9.31), an elderly Geshiza man narrates that in his childhood, a white man visited Balang Village and stayed with them. He, however, has forgotten all these events himself, and reports what his father and grandfather have told him. Consequently, the verb *jə* appears twice, first in its lexical meaning and second as the reportative marker. Despite this, some uses of *jə* are in practice difficult to categorise as either reported speech or quotatives.

(9.31) *'sɲe-slə* *tɕ^{h}a=ræ* *we* *t^{h}əu'* ***jə-ræ-jə.***
seven-CLF.month time=LNK house reach.NPST.1SG **say.3-SENS-REP**
'I reached (your) home in seven months,' he said, I have heard. (RN: family history)

9.2.5. Quotative evidential *-wo*

Following Aikhenvald (2004), quotative is defined as an evidential category indicating the exact author of the quoted report (cf. the reportative in §9.2.4). In comparison to all the other epistemic suffixes, the Geshiza quotative *-wo* (glossing: QUOT) has an extremely limited distribution in terms of possible host verbs. For obvious reasons, the suffix most frequently attaches to the verb *jə* (V2b) 'to say', but other *verba dicendi*, such as *ạməmə* (V2b) 'to discuss', are also attested in rare instances (9.32, 9.33, following page):

(9.32) *wne=t^{h}ə* *dɔ-məmə-**wo**:* *'ɲi* *næ-ven* *tɕ^{h}a,* *rjəu-p^{h}a*
two=TOP PFV-discuss.3-**QUOT** 2SG DIR-go.SUPPL.2 when wife=COM

næ-ven *tɕ^{h}a=ræ* *ŋɛ* *ą̈mo* *noŋ* *ʑæmæ* *æ-ŋk^{h}uə*
DIR-go.SUPPL.2 when=LNK 1SG.GEN mouth in thumb SEM-put.in

næ-rɛ.'
IMP-LV:hit.2SG
The two discussed: 'When you go down with (our shared) wife, put (your thumb) inside (my) mouth (as a signal).' (RN: folktale)

The quotative suffix displays a distributional pattern distinct from all other epistemic suffixes. It requires a matrix clause to which it is postposed: [matrix clause]-wo [quote], illustrated in (9.32).The matrix clause may also follow the quote: [quote] [matrix clause]-wo, as in (9.33). The quotative suffix in Geshiza cannot be attached directly to the quote. Finally, as discussed in (§9.3.4), the quotative is incompatible with modal discourse enclitics (see §8.6.5) while all other epistemic suffixes have no such restriction.

(9.33) [...] *e=t^{h}ə~t^{h}ə* *'bɔrqua* *st^{h}ə'* *jə-**wo.***
[...] DEM=TOP~RED throat tighten.NPST.3 say.3-**QUOT**
... 'My throat tightens (i.e., I am very angry),' he said. (RN: folktale)

9.2.6. Engagement: non-shared information *-go*

Evidentiality in Trans-Himalayan languages is currently receiving considerable attention. In addition, Geshiza includes grammaticalised intersubjectivity that cannot be interpreted within the narrow framework of evidentiality, namely grammaticalized information source following Aikhenvald's (2004) popular definition. For this grammatical category, I adopt the term 'engagement', namely grammaticalised intersubjectivity expressing 'the speaker's assumptions about the degree to which their attention or knowledge is shared (or not shared) by the addressee' (Evans, Bergqvist, and San Roque 2017).

Geshiza has a suffix that encodes interpersonal epistemic relations: *-go* (glossing: NSI) It brings a state of affair to the forefront of the addressee's attention.[72] To illustrate, in (9.34, following page) that has been generated as an example by a native Geshiza to illustrate the function of *-go*, speaker 1 notices a girl that he expects not to have entered the attention of speaker 2. Speaker 1 thus draws the attention of speaker 2 to the girl through the use of *-go* with the attempt of establishing joint attention and a mutually shared field of knowledge:

[72] See Yliniemi (2016) for a similar effect in the Nepali discourse particle *ni*.

(9.34) *e* *smæŋa* *gæ-mdze* *æ-lə* *ŋuə-**go.***
DEM girl ADJZ-beautiful one-CLF.INDEF COP.3-**NSI**
'That girl is beautiful.' (speaker A)

ŋuə-ræ. *ŋuə-ræ.* *mdze-ræ.*
COP.3-SENS COP.3-SENS be.beautiful-SENS
'Yes, yes. She is beautiful.' (MEE; speaker B)

Seen more broadly, *-go* marks utterances that the speaker estimates to be new information to the listener, reflecting thus (expected) epistemic asymmetry between the speaker and the addressee. To illustrate, in example (9.35), the speaker knows that fertiliser prices have increased, but expects his addressee not to. It is worth noting that the use of the engagement suffix reflects the speaker's subjective evaluation; the addressee possibly already knows the information, yet the speaker expects this certainly not to be the case.

(9.35) *xuaɕʰo-pʰo* *goŋ* *rə-n-tɕæ-sʰi-**go**=bɔ.*
fertiliser-cost price PFV.DIR-AB-increase.PST.3-IFR-**NSI**=MOD
Fertiliser prices have increased! (RC)

Engagement, epistemic authority, and person

The engagement suffix is never present in the first person in the source materials. Since many utterances a speaker produces concerning his/her ego by default offer new information to the discourse (e.g. I will go now/I won the lottery today), no further emphasis is necessary. Also, for obvious reasons, the speaker generally lacks epistemic authority concerning matters related to the addressee. As a result, the engagement suffix generally cooccurs only with the third person.

Geshiza nevertheless includes one scenario in which *-go* is frequently used with the second person. It is common for a speaker to forget something that he or she has previously said, yet this information can be remembered by other participants. In such cases, other participants may use *-go* to bring the forgotten piece of information back to the attention of the person who has forgotten it, thus reactivating it. In other words, participants in a conversation may help each other regain temporary lost epistemic authority. To illustrate this fascinating phenomenon, in (9.36), speakers A and B are talking about a gift on the occasion of a newly born baby in the village. Speaker B was supposed to make a phone call to enquire concerning the gift. However, he forgot this, admitting the state of affairs to A, who subsequently uses *-go* to mark the information speaker B was supposed to know, but had forgotten. In other words, the discourse context shows that originally shared information had become non-shared because of forgetting. Speaker A reminds B that he himself promised to make a phone call concerning the gift. After this, speaker B presumably remembers what he has promised to do.

(9.36) *lŋamdzo* *gæ-mɛ-rje=gæ.*
baby.gift IPFV-ASP.NEG-ask.2SG=MOD
You forgot to ask about the gift to the newly born baby. (speaker A)

oxoxo *lŋamdzo* *ɾjæ* *dæ-lmu-s^{h}i.* *lŋamdzo=t^{h}ə* *lɔ...*
INTERJ baby.gift ask.INF PFV-forget.1SG-IFR baby.gift=TOP again
Oops, I forgot to ask about the gift. The gift… (unfinished, speaker B)

'lŋamdzo' *gæ-jin-s^{h}i-go=ræ* *<tiænxua>...*
baby.gift IPFV-say.2-IFR-NSI=LNK phone
(Previously), you talked about the gift, but you (forgot to call.) (speaker A)

Example (9.37) further illustrates the point:

(9.37) *q^{h}æs^{h}i* *ætɕ^{h}ə-bɔt^{h}ə* *<səɲrə>* *ɲ-van=goŋ.*
tomorrow what-like birthday AB-LV:do.1PL=MOD
How will we celebrate the birthday tomorrow? (speaker A)

məgərja *lŋa=ɲə=ke* *'braŋgu* *ɕoŋ'* *dæ-jin* *mɲa,* *braŋgu.*
recently child=PL=DAT TOPN go.NPST.1 PFV-say.2 NEG.COP.3 TOPN
Recently, didn't you tell the children that we will go to the County Town? (speaker B)

m.
INTERJ
Yeah. (speaker A)

braŋgu *<ʈs^{h}uæntʂ^{h}uæntɕon>* *ŋgə* *ɕoŋ* *gæ-jin-s^{h}i-go* *tɕ^{h}u.*
TOPN skewers eat.INF go.NPST.1 IPFV-say.2-IFR-NSI CONJ
You said that we will go to the County Town to eat the skewers. (speaker B)

ŋi-ræ. *ŋi-ræ.* *q^{h}æs^{h}i=t^{h}ə* *lŋa=ɲə* *<ʈ^{h}uæntʂ^{h}uæntɕan>=ɲə*
be.okay-SENS be.okay-SENS tomorrow=TOP child=PL skewers=PL

ŋgə *æ-li* *ɕ^{h}aŋ.*
eat.INF one-CLF.time take.NPST.1PL
All right. Let's take the children to eat the skewers tomorrow. (speaker B)

Comparative remark

Grammatical engagement systems have recently been discovered in Trans-Himalayan languages, e.g. in Kurtop (Hyslop 2014, the term engagement not used by the author). Research on engagement nevertheless originates from languages of Southern America. In canonical described engagement systems, markers of non-shared information symmetrically contrast with markers of shared information in a binary fashion, see e.g. Bergqvist (2016) on Kogi, an Arwako-Chibchan language spoken in northern Colombia. Geshiza deviates from this pattern, since the language lacks overt marking for shared information or information for which joint attention exists. Consequently, Geshiza may be helpful in shedding light for typological research on engagement systems, fertile ground for typological research.

9.2.7. Epistemic suffix *-mə*

The epistemic suffix *-mə* (glossing: EP) is by far most challenging to describe in Geshiza. Initial analyses point towards excluding the possibility of evidential value. The following remarks are based on explanations through monolingual elicitation and analysis of recorded source materials, illustrating potential functions of the suffix. Future work is needed to confirm the tentative remarks herein.

The suffix frequently adjoins *verba dicendi* and cooccurs with evidentials. It is nevertheless also hosted by other types of verbs. In (9.38), *-mə* indicates that the speaker has acquired new knowledge. In contrast to *-go* with which a speaker shares knowledge already in his or her possession, *-mə* thus seems to code the opposite process of knowledge acquisition.

(9.38) *tʰə=ke=tʰə* *<tiænləu>* *jə-**mə**.*
DEM=DAT=TOP computer say.3-**EP**
So that is called ‘computer’ (speaker sees a computer for the first time). (MEE)

The analysis above fails to explain most cases of *-mə*, such as (9.39) where the suffix’s function remains unclear. Other scenarios are also attested in the source materials. Consequently, It is possible that what is described here as a single suffix originates historically as a conflation of several distinct suffixes.

(9.39) *sʰo* *sʰæde* *leska* *lɔ* *ɕin* *vɕe* *joŋ-**mə**.*
DM day.after.tomorrow work again go.NPST.2 need.NPST say.1-**EP**
The day after tomorrow you need to go back to work again, I am saying. (RC)

9.2.8. Other ways for expressing evidentiality-like meanings

As stated by Aikhenvald (2014: 19), ‘non-evidential categories frequently acquire evidential extensions’, termed as ‘evidential strategies’ by the authors. I briefly sketch how evidentiality-like meanings may be expressed lexically in Geshiza apart from grammaticalised markers of

evidentiality. Whether evidentiality is strictly a grammatical category or more broadly a functional category that may be expressed by different means is debated among researchers (see Aikhenvald 2004 for the former and Squartini 2018 for the latter approach). To avoid taking sides in the debate, I use the term evidentiality-like meanings, merely acknowledging that some words in a given language may show semantic resemblance to grammaticalised evidential markers.

Perception verbs

Perception verbs denote the source of information, the source being lexically coded and thus inherently present in a given verb: *vdo* (V4) 'to see'; *stɕʰəkʰi* (V4) 'to watch'; *ntʰje* (V3b) 'to hear'; *sŋi* (V3b) 'to listen'.

Verb of external appearance: vsəu *(V4) 'to seem, look like'*

The verb *vsəu* (V4) 'to seem, look like' is in frequent use among the Geshiza: *ɕʰændʐi̯=ke vsəu* (daemon=DAT to.seem) 'to look like a daemon, to be extremely ugly (see §2.7.2 for Geshiza ontology)'. Such use typically entails a visual information source (9.40). In practice, however, the verb is more commonly used for epistemic certainty with partial epistemic support. For instance, in example (9.41), the speaker is fairly, but not absolutely confident concerning the size of a group he belongs to.

(9.40)

e	*tʰo*	*kʰə...*	*kʰəntɕʰær*	*bɔ*	*æ-lə*	*dʐi=ke*
DEM	DEM.LOC	HES	stray.dog	like	one-CLF.INDEF	EXV.3=DAT

dæ-vsʰəu.
PFV-seem.PST.3
Over there, it seemed that there is (i.e. was) a stray dog. (RN: folktale)

(9.41)

æqɛ=lɔ=tʰə	*ɣæ-vtɕʰəu-ɣi,*	*ɣæ-vtɕʰəu-ɣi*	*mdʐaŋ=ke*	***vsəu.***
all=TERM=TOP	ten-six-CLF.person	ten-six-CLF.person	EXV.1=DAT	**seem.NPST.3**

Altogether, it seems that we are 16 people (in the regularly gathering group). (RN: procedure)

Nominalising construction and indirectivity

A nominalising construction formed with a verb nominalised by the S/A nominaliser *-sʰi* (see §6.2.3.1) followed by the copula *ŋuə* has an evidential overtone termed 'indirect' here, namely any information source outside the ego. The structure is frequently used in narrating histories and folktales. To illustrate, in (9.42), the speaker explains the history of a place, retelling what he has heard. In (9.43), a speaker retells a folktale. In these contexts the nominaliser is not glossed as NMLZ:S/A.

(9.42) *bədzu=t^{h}ə~t^{h}ə* *ɲəma* *a̠na=t^{h}ə~t^{h}ə* *bəndzu* ***dæ-jə-s^{h}i***
TOPN=TOP~RED past past=TOP~RED TOPN **PFV-say.3-NMLZ**

ŋuə-ræ.
COP.3-SENS
In the past, *bədzu* was called *bəndzu*. (RN: local history)

(9.43) *p^{h}jəpo* *æ-ɣæ* ***dæ-dʑi-s^{h}i*** ***ŋuə-ræ.***
rich.person one-CLF.household **PFV-EXV.3-NMLZ** **COP3-SENS**
There was a rich family. (RN: folktale)

9.3. Evidentiality and other grammatical categories

Evidentiality and other grammatical categories are intertwined. The nature of these interrelations, however, often defies cross-linguistically valid generalisations, and languages show peculiarities concerning these interrelations (Forker 2018: 84). Below, such interrelations are discussed in the context of Geshiza.

As Aikhenvald (1998) states, dependencies exist between grammatical systems, such as tense, aspect, and evidentiality. Aikhenvald further defines a category as depending on another if the available choices within it depend on choices made in another category. Against this backdrop, this section focuses is devoted to exploring the links evidentiality shares with other grammatical categories.

The discussion in this subsection concerns evidentiality and reality status (§9.3.1); negation (§9.3.2); tense-aspect (§9.3.3); modality (§9.3.4); and person-number (§9.3.5). To summarise the findings, evidentiality excludes the use of the irrealis categories of imperatives (see §8.5.4, §10.2) and optative (see §8.5.5), has a limited choice of co-occurring modality, and is dependent on the tense used, and manifests person effects (i.e., the so-called first-person effect). These features are summarised in Table 9.3 on the following page:

Table 9.3. Evidentiality and other grammatical categories in Geshiza

Grammatical category	Dependency
Reality status	Evidentiality absent in the irrealis categories of imperatives and the optative; present in the realis categories of indicative, non-actual realis, and interrogative
Negation	The quotative absent, other evidentials present; the dedicated irrealis negator *-di- ~ dʑi-* incompatible with evidentiality
Tense	Inferential evidential *-sʰi* always used in past and sensory evidential *-ræ* in non-past contexts
Aspect	Aspect and evidentiality lack direct dependencies, but aspect itself intertwined with tense
Modality	Restrictions on co-occurring manifestations of modality, such as the imperatives and a part of the modal discourse enclitics
Person-number	person effects in the use of evidentiality

9.3.1. Evidentiality and reality status

Evidentiality generally pertains to the domain of realis. All three Geshiza realis categories of indicative (9.44), non-actual realis (9.45), and interrogative (9.46) allow evidential marking:

(9.44) Indicative (realis, evidential marking allowed):
*ɲi=be skæ gæ-ndʑər-**sʰi**.*
2SG=too voice IPFV-change.3-**IFR**
Your voice has turned strange (and it seems like you are getting sick). (OU)

(9.45) Non-actual realis (evidential marking allowed):
*ŋa=tʰə bɔtʰə g-ə-ntsʰu-**ræ**=mɔ.*
1SG=TOP like.that PREF-NACt-think.NPST.1SG-**SENS**=MOD
I think like that. (RC)

(9.46) Interrogative (realis, evidential marking allowed):
*æ-mdze-**ræ**.*
Q-be.beautiful.3-**SENS**
Is it (the room decoration) beautiful?

In contrast, no instances of evidentiality accompanying the irrealis categories of imperative (9.47, following page) and optative (9.48) were found. Geshiza reflects a typological tendency here. Aikhenvald (2004: 250) argues that evidentials are not used with imperatives in an overwhelming majority of languages with evidential systems in their grammar.

(9.47) General imperative (irrealis, no evidential marking allowed):
ŋkʰuma *næ-rɛ.*
key IMP-hit.2SG
Lock the door!

(9.48) Optative (irrealis, no evidential marking allowed):
n-a-ɱdær.
PREF-OPT-bite
Let (the hornet) bite you! (UA: joke)

Interrogation and source of information

Typologically, evidentials in interrogatives often but not always shift to reflect the addressee's, rather than the speaker's source of information (San Roque, Floyd, and Norcliffe 2017). Such perspective shift occurs in Geshiza as well. Since the speaker and addressee generally have the same information source vis-à-vis the third person, evidential marking in such contexts appears generally symmetric across declaratives and indicatives, as in. The second person, however, shows differing behaviour. A perspective shift to reflect the addressee's information source often results in complete lack of evidential marking (9.49). This occurs since the mirrored the first person ego general has direct knowledge, which is left formally unmarked in Geshiza.

(9.49) *o* *ŋgərə=tsʰe* *tʰo* *ŋkʰuma* *ɕʰa* *næ-ɕʰin=jɔ*,
INTERJ PN=ASS DEM.LOC key take.INF PFV.DIR-go.PST.2=**Q**

bəsni *gædəɣi.*
today morning
Today morning, did you go to *ŋgərə*'s house to get the key? (RC)

This perspective shift phenomenon resembles what has been characterised as egophoricity in the literature (see Floyd, Norcliffe, and San Roque 2018 for recent research). Shirai (2013) reports an egophoric system in Stau, using the term 'point-of-view system' for the phenomenon. The role of egophoricity in epistemic systems vis-à-vis other categories, such as evidentiality, remains unclear and partially controversial. Furthermore, even though the epistemic suffixes show perspective shift described above and widely attested cross-linguistically, the language lacks dedicated grammaticalised markers for egophoricity. For these reasons, I refrain from using the notion egophoricity for Geshiza at the present stage of description.

9.3.2. Evidentiality and negation

Typologically, negation and evidentiality may cooccur in a clause or sentence if the scope of a fully grammaticalised evidential covers negation (De Haan (1997: 146-168; De Haan 1999). In other words, evidentiality and polarity are conceptually independent, and unlike epistemic modals, evidentials cannot be negated in most languages (Forker 2018). The Geshiza evidential system reflects this. In (9.50), the speaker infers from visible evidence (the remaining signs of a skin disease) that the calf's disease has not been cured despite all efforts and medication:

(9.50) *rgət^{h}a lme rgækuær=be gəndɔ gæ-**mɛ-**ɻ̊vi-**s^{h}i**=je.*
calf 3SG.GEN bovine.skin.disease=too strongly IPFV-**ASP.NEG**-heal.3-**IFR**=MOD
The calf's skin disease has not healed either! (RC)

Some languages show dependency of the type polarity > evidentiality in which fever evidentiality distinctions exist in negative clauses. In the evidential system of Geshiza, all evidential options being available in negative clauses, except the quotative, since due to pragmatic reasons, it is uncommon to quote what one did not say, the quotative being reserved for utterances that actually took place and were received (9.51, 9.52):

(9.51) *ts^{h}oŋpən=wo dæ-jə-**wo** 'ŋa tɕ^{h}oŋ'.*
merchant=ERG PFV-say.3-**REP** 1SG AUX.can.NPST.1
The merchant said: 'I can do it.' (RN: folktale)

(9.52) **ts^{h}oŋpən=wo **mɛ-**jə-**wo** 'ŋa tɕ^{h}oŋ'.*
merchant=ERG **ASP.NEG**-say.3-**REP** 1SG AUX.can.NPST.1
Intended meaning: The merchant did not say: 'I can do it.' (REJ; see 9.51)

9.3.3. Evidentiality and tense-aspect

The use of tense restricts the appearance of the inferential and sensory evidentiality. In contrast to the sensory evidential *-ræ* requiring the non-past stem, the inferential evidential *-s^{h}i* occurs exclusively together with the past stem of the verb. They occasionally form strikingly similar pairs in the third person, essentially differing in tense and aspect only (9.53, 9.54):

(9.53) *mi-lo-**ræ**.*
NEG-be.hot-**SENS**
It is not hot. (UA)

(9.54) *dʑa dæ-lo-**s^{h}i**.*
tea PFV-be.hot-**IFR**
The tea became hot. (MEE)

Nevertheless, the two evidentials markers are clearly not allomorphs encoding a single evidential category marker in complementary distribution, since their use in the first person differs noticeably. For instance, in (9.55), the speaker expresses the endophatic feeling of being sick at present with the required sensory evidential *-ræ* used (see §9.3.5 for the first person effect). In the past perfective, however, the inferential *-s^hi* is judged ungrammatical, since rather than discussing an ongoing state, the speaker has personally experienced the sickness from which he or she has now healed, which makes the use of the unmarked ego-oriented evidential obligatory (9.57):

(9.55) *ŋa* *ŋoŋ-ræ.*
1SG be.sick.1-SENS
I am sick. (MEE)

(9.56) **ŋa* *dæ-ŋoŋ-s^hi.*
1SG PFV-be.sick.1-IFR
Intended meaning: I was sick. (REJ; see 9.57)

(9.57) *ŋa* *dæ-ŋoŋ.*
1SG PFV-be.sick.1
I was sick. (MEE)

9.3.4. Evidentiality and modality

The relationship between evidentiality and modality has been discussed at length. While many typologists consider the two distinct grammatical categories, in some approaches, they are either analysed as having considerable overlap or evidentiality is interpreted as a subcategory of modality, e.g. epistemic modals (see Palmer 1986).

In this overview-like chapter, I merely focus on the relationship between the evidentials and modal discourse enclitics (see §8.6.5), the most ubiquitous markers of modality in Geshiza. The formally unmarked ego evidential co-occurs with all modal discourse enclitics The compatibility of marked evidentials with the discourse enclitics is more complex, illustrated in Table 9.4 on the following page. The following general tendencies emerge. First modal discourse enclitics encoding epistemic uncertainty, auto-interrogation, and the emotive-exclamative-mirative *-lu* are never attested with evidentials. In turn, most evidentials are compatible with the interrogative and assertive enclitics. The quotative differs in behaviour from all other evidentials by being incompatible with any of the modal discourse enclitics.

Table 9.4. Compatibility of evidentials and modal discourse enclitics

Discourse enclitic	Primary function	IFR *-s^{h}i*	SENS *-ræ*	REP *-jə*	NSI *-go*	EV *-mə*	QUOT *-wo*
=ba	probabilitative	✗	✗	✗	✗	✗	✗
=mdɔ	uncertainty	✗	✗	✗	✗	✗	✗
=goŋ	auto-interrogative	✗	✗	✗	✗	✗	✗
=lu	emotive-exclamative	✗	✗	✗	✗	✗	✗
=za	standard interrogative	✓	✓	✓	✓	✓	✗
=jɔ	interrogative	✓	✓	✓	✓	✓	✗
=bɔ	assertive, suggestive	✓	✓	✓	✓	✗	✗
=mɔ	assertive: weak	✓	✓	✓	✓	✗	✗
=mde	assertive: strong	✓	✓	✓	✓	✗	✗
=gæ	emphatic assertive	✓	✓	✓	✓	✗	✗
=mɲoŋ	assertive	✓	✓	✓	✓	✗	✗
=je	exclamative- aggressive	✓	✓	✓	✓	✗	✗

Examples (9.58-9.59) below illustrate co-occurrence of the evidentials and modal discourse enclitics:

(9.58) Inferential evidential *-s^{h}i*, assertive modal discourse enclitic *=bɔ:*

zɣa	*æ-wnæsq^{h}a-ko=be*	*mətsʰæ*	*dæ-t^{h}je-**s^{h}i=bɔ.***
ten	one-twenty-CLF.year=also	more	PFV-become.PST.3-**IFR=MOD**

Even ten, twenty-something years have passed since. (RN: personal history)

(9.59) Sensory evidential *-ræ*, exclamative-aggressive modal discourse enclitic *=je:*

ɾtso=be	*tɕɔ=nɔ*	*tɕɔ-**ɾɛ.***
cold.season=too	be.pleasant.NPST=TOP.C	be.pleasant.NPST-**SENS.MOD**

The cold season is quite pleasant too (RC; *-ræ=je* fusions into *-ɾɛ* in fast speech)

9.3.5. Evidentiality and person-number: the first person effect

This subsection thus analyses the particularities of evidentiality in the first person in Geshiza. Research on evidentiality has traditionally been based on third person materials, first person receiving little attention (Curnow 2002: 1). Excessive reliance on narrative source materials with predominantly third person participants explains a part of this. First person effects in evidentiality, however, are cross-linguistically common (Sun 2018: 58). Besides the core meaning, evidentials may develop additional nuances depending on the person: 'for instance, first person expressions combined with non-visual, inferred or reported evidentials frequently describe actions beyond a speaker's control' (Aikhenvald and LaPolla 2007: 13).

Table 9.5. Evidentiality and person effects

Evidentiality type	Person		
	1	2	3
Ego-oriented	direct participation and/or intimate knowledge		
Non-past sensory	non-shareable personal sensations with no control	sensory source in non-past	
Past inferential	lack of intention and/or awareness, awareness gained post factum	indirect source in past	
Reportative		reported source	
Quotative		quoted source	

As a summary, Table 9.5 above illustrates the semantics of the evidentials with different persons. Typologically, first person has more limited choices of evidentials vis-à-vis other persons (Aikhenvald 2004: 231; Sun 2018: 51; cf. cf. Guentchéva et al. 1994: 147). In Geshiza, reportative and quotative evidentials never appear in first-person contexts in the source materials and all attempted elicitations in this context have been judged ungrammatical. Consequently, either I have failed to find the pragmatically restricted conditions in which the reportative and quotative occur in the first person context, or Geshiza grammar disallows this.

Sensory evidential and the first person effect

The sensory and indirect evidentials cause first-person effects in Geshiza. This have been briefly touched in the discussion of marking of evidentiality and engagement (see §9.2).

The sensory evidential *-ræ* is used for endophatic sensations directly experienced by the first person. These sensations cover sickness (9.60), uncontrollable bodily functions (9.61), and feelings (9.62). In general, these describe uncontrollable events and states. As in Tibetan reported by Tournadre & LaPolla (2014), the experiences are non-shareable. Thus, it can be generalised that in its extended sense, the sensory evidential is used for states and actions that remain outside the subject's control and take place without explicit volition, sometimes even against it (see e.g. 9.61):

(9.60) *ŋa* *æ-nts^{h}æ* *ŋoŋ-**ræ**.*
1SG CLF.little.bit sick.1-**SENS**
I am a little bit sick. (MEE)

(9.61) *ŋa* *ŋkʰoŋ-**ræ**.*
1SG vomit.NPST.1-**SENS**
I feel like vomiting. (MEE)

(9.62) *ŋa* *ɲi=zɔ* *smæn-**ræ**.*
1SG 2SG=only like.2-**SENS**
I like only you. (MEE)

If the speakers judge themselves having control over the sensations or mental processes, the sensory evidential must be dropped. Usually, forgetting is an undesired involuntary mental process, but a person may decide to actively 'forget' an event because of social reasons (9.64):

(9.63) *ŋui=tʰə* *ŋa* *lmu=bɔ.*
past=DEM 1SG forget.1SG=MOD
Let bygones be bygones. (lit. I will forget that past thing.) (MEE)

Inferential evidential and the first person effect
When used with the first person, the inferential evidential *-sʰi* indicates that the speaker did not carry out the action intentionally (i.e. inadvertent action), was unaware of it when it took place, or did not intend to cause the actual outcome (9.64, 9.65):

(9.64) *ŋa* *dæ-lmu-**sʰi**.*
1SG PFV-forget.1SG-**IFR**
I forgot it. (UA)

(9.65) *vo* *dæ-tu* *dɔ-lan-**sʰi**.*
alcohol drink.PST.1SG PFV-fall.ANTICAUS.1-**IFR**
I drank alcohol(, got drunk,) and fell down. (MEE)

To compare, in (9.66, following page), the speaker clearly remembers the past trip to Mt. *mu rdo* with his then young son, and as a result, he uses the evidentially non-marked ego evidentiality form. In contrast, in (9.67), the speaker does not remember the mysterious foreign visitor who stayed at their home approximately during the Second World War when he was still a child. Since he relies on indirect knowledge passed down in his family rather than his already forgotten personal experience, the copula is marked with the inferential evidential *-sʰi:*

(9.66) *mærtə=ke* *skærva* *æ-lə* ***dæ-ɕʰoŋ.*** *oja*
TOPN=DAT circumambulate one-CLF.INDEF **PFV-go.PST.1** INTERJ

xə *tɕʰa=ræ* *ŋa=ntsʰe* *dærdʑe=tʰə* *dəu~dəu=kʰa* ***dæ-ŋuə.***
DEM time=LNK 1.ASS.GEN PN=TOP RED.ADJZ~small=about **PFV-COP.3**

ŋæ=næ *va-zə* *dæ-**ŋoŋ.***
1=DU father.CS-son PFV-**COP.1**

I went to Mt. *mu rdo* to circumambulate. At that time, my (son) *dærdʑe* was quite young. It was us two, father and son (who went for the pilgrimage). (RN: personal story; see §2.7.1. *Pilgrimage* for pilgrimages among the Geshiza)

(9.67) *'ŋa,* *ŋa* *næ-ro* *ɕʰu'* *dæ-jə-sʰi* *ŋuə-ræ.*
1SG 1SG DIR-ADV take.NPST.1SG PFV-say.3-NMLZ COP.3-SENS

'ɣæ-ŋuæ-ko *tɕʰa* *lɔ* *rə-ɕʰin.* *lɔ* *ɕʰin'*
fifve-ten-CLF.year time again DIR-take.NPST.2 again take.NPST.2

dæ-jə=ræ *ŋa* *<tuərtsə>* *dæ-**ŋoŋ-sʰi*** *tɕʰu* *tɕʰu*
PFV-say.3=LNK 1SG only.child PFV-**COP.1-SENS** CONJ CONJ

mɛ-wɕo-sʰi.
ASP.NEG-send.PST.3-IFR

'I will take him with me (abroad),' he said. 'After 15 years, I will bring you back', he said. Since I was the only child, (my father) did not send me (abroad). (RN: family history; approximately during the Second World War, a westerner arrived in Balang Villages after having walked seven months and stayed there for some time).

9.4. Other uses of evidentiality

This section discusses the use of evidentials in discourse. The main divisions are mirative extensions of evidentiality (§9.4.1); co-occurrence of epistemic markers (§9.4.2); and evidentials as genre markers (§9.4.3).

9.4.1. Mirative extensions of evidentiality

Made famous by DeLancey (1997b), 'mirativity' refers to grammatical marking of unexpected information, 'unpreparedness of the mind'.[73] Geshiza has no dedicated grammatical marker for

[73] While mirativity has become a popular concept, is not universally accepted as a grammatical category. See Hill

mirativity. The inferential evidential *-s^{h}i* appears in contexts where the speaker realises something post factum. In (9.68), the speaker realised that he did not carry out any other tasks during the day. This, however, encodes only a mild form of surprise and unexpectedness.

(9.68) *məsni=t^{h}ə* *s^{h}o* *tɕ^{h}æræ* *mɛ-dəu-**s^{h}i**.*
today=TOP more thing ASP.NEG-do.1SG-**IFR**
I did not do anything else today. (RN: chronicle)

Additionally, the inferential evidential *-s^{h}i* is used when the speaker is clearly surprised upon gaining new information, having gained mirative overtones. In (9.69), the speaker meets the author after several months, and comments on the perceived difference in his physical condition with a mild surprise:

(9.69) *ləspə* *rə-lxua-**s^{h}i**.*
body PFV-gain.weight.3-**IFR**
You have gained weight! (UA)

In (9.70), the author has shown the speaker some photos of their previous trip to Buke Village monastery. The speaker had completely forgotten the event, so upon seeing the picture, he expresses his surprise by the use of the Inferential evidential, the lack of which would fail to convey the speaker's surprise (9.71):

(9.70) *ŋæ=ɲə* *skærva* *dæ-ɕ^{h}oŋ-**s^{h}i***
1=PL circumambulation PFV-go.PST.1-**IFR**
We went to circumanbulate (together, and I am surprised by this fact that I had already forgotten)! (UA)

(9.71) *ŋæ=ɲə* *skærva* *dæ-ɕ^{h}oŋ.*
1=PL circumambulation PFV-go.PST.1
We went to circumanbulate (together). (ACC; see 9.70)

In addition to the inferential evidential marker *-s^{h}i*, the emotive-exclamative modal discourse enclitic *=lu* (see §8.6.5) also frequently carries mirative overtones (9.72, following page). The enclitic frequently appears together with the interjection *wa* 'wow', a lexical means for expressing mirativity-like semantics.

(2012) for a view for withdrawing mirativity in its current form from the theoretical repertoire of descriptive linguistics, unless the insufficiently precise notion can be further refined.

(9.72) *wa~wa~wa~wa* *e* *vdzi=p^{h}a* *gæ-ʤ̥ɔ* *æ-lə*
INTERJ~RED~RED~RED DEM person=COM ADJZ-competent one-CLF.INDEF

*ŋuə-**lu**.*
COP.3-**MOD**
What an extraordinary person this one is! (RN: chronicle; notice also the special use of the comitative case *=p^{h}a* (§5.3.9) conditioned by the adjectivisation *gæ-ʤ̥ɔ* in this context not attested anywhere else in the source materials)

Relationship of mirativity and inferential evidentiality in Geshiza
In practice, demarcating the prototypical domains and the mirative extension of the inferential evidential proves difficult, since both of the inferential and mirative functions may overlap. In (9.73), while waiting for his son to drive home for dinner, the speaker hears the sound of a motor. From this, he infers that his son is coming, but the sound passes, and to his mild surprise, he realises that the sound was caused by a motorbike, not his son's car. Aikhenvald (2004: 202) calls such scenarios 'deferred realisation' (see again also example 9.68 that resembles deferred realisation). Since the first-person effect describes inadvertent action, the consciousness of which is frequently gained only afterwards, the domains of the first-person effect and the mirative extension overlap.

(9.73) *dæ-mɲa-**s^{h}i**.* *mot^{h}oʈ^{h}e.*
PFV-NEGCOP.3-**IFR** motorbike
It was not (my son). (It was) a motorbike (the sound of which resembled that of my son's car when he comes back home in the evening). (UA)

Typological remark
Aikhenvald (2004: 195) states that in larger evidential systems, namely systems containing three or more evidentials, the inferential may acquire a mirative meaning. Geshiza fits into this typological characterisation.

9.4.2. Cooccurrence of epistemic markers

Geshiza exhibits stacking of epistemic markers, except in the case of the quotative that only occurs independently. When the epistemic markers co-occur, they follow strict positional requirements and their order cannot be freely altered. The maximum stacking chain of five suffixes is illustrated in (9.74):

(9.74)

inferential	undefined	sensory	reportative	non-shared information
-s^{h}ə	*-mə*	*-ræ*	*-jə*	*-go*

Occurrence of multiple epistemic markers creates a hierarchical structure of epistemic information. For instance, in (9.75), the original speaker discussed the seeing-off (funeral) with the sensory evidential, which is further reported by another speaker using the reportative.

(9.75) [[*bəsni* *pʰjo-ræ*]-*jə*.]
today see.off.NPST-SENS-REP
It is said that the seeing-off (i.e., funeral) is today.
[The seeing of is tomorrow]-Sensory]-Reportative]

9.4.3. Evidentials as genre markers

Evidentials frequently play a role to mark specific speech genre in languages of the world. From the viewpoint of discourse genres, the Geshiza reportative appears most frequently in traditional stories (see §2.7.4) that are marked as such by its presence. Consequently, it functions as a discourse genre marker. This is a manifestation of a universal tendency: Aikhenvald (2004: 9) states that an evidential may function as a token of a genre. Furthermore, as stated by Aikhenvald (2014: 35), 'in the overwhelming majority of languages, ancestral stories and legends are told using reported evidential.' Geshiza thus follows this tendency, but it is rare for all clauses to consistently carry reportative marking. The high frequency of the reportative in traditional stories can be understood historically, since in the speech community without access to writing in the mother tongue, the stories acted as a means of transmitting the collective knowledge from generation to generation. Each performance of a story constitutes thus in essence the speakers' report on what they themselves have been told before. The reportative is nevertheless also commonly used in everyday conversation. In contrast, the quotative also appears in folklore, yet the source materials lack recorded instances of its use in everyday language. It thus also qualifies as a genre marker that typically does not surface outside its dedicated genre.

9.5. Summary

This chapter sketched grammaticalised epistemic system of Geshiza. As part of its verb morphology, Geshiza has six epistemic affixes that encode both evidentiality and engagement. The primary evidential categories comprise ego-oriented, sensory, inferential, reportative, and quotative. The language additionally includes a dedicated engagement suffix of non-shared information and an additional epistemic suffix requiring further investigation. Mirative overtones can be identified for the inferential evidential. Additionally, the epistemic suffixes can co-occur in Geshiza and they serve as genre markers, most notably in folklore.

CHAPTER TEN
Non-declaratives: questions and commands

Declarative speech discussed this far in the grammar contrasts with non-declarative speech acts that are commonly divided into the major types of questions and commands. This chapter follows the division, starting with Geshiza questions (§10.1), followed by commands (§10.2). A summary is given at the end (§10.3).

10.1. Questions

Following a brief overview (§10.1.1), this section discusses the formally diverse Geshiza interrogative repertoire that includes polar questions (§10.1.2); tag questions (§10.1.3); alternative questions (§10.1.4); content questions (§10.1.5); auto-interrogation (§10.1.6); and rhetorical questions (§10.1.7).

10.1.1. Overview

Table 10.1. below illustrates the interrogative system of Geshiza. Interrogative forms do not build a single consistent paradigm in the language, but appear in various loci as prefixes, enclitics, and full lexemes. The interrogative sentences are symmetric with declarative sentences, i.e., both are structurally identical, save the interrogative marking. The only asymmetry is attested in morphophonology, where an interrogative prefix fuses into the verbal prefixes present in declarative sentences.

Table 10.1. Summary of Geshiza interrogative strategies

Interrogative type	Form	Sections of the grammar
Polar questions	*æ-*	§10.1.2
	-i-	§10.1.2
	=za	§10.1.2
	=jɔ	§10.1.2
Auto-interrogation	*=goŋ*	§10.1.6
Tag questions	*æ-ŋuə(-ræ)*	§10.1.3
	mɲa(=jɔ)	§10.1.3
Alternative questions	A = *za* B	§10.1.4
Content questions	*ætɕʰə* ‘what’ etc.	§10.1.5; see §4.5.3 for a list
Rhetorical questions	various strategies	§10.1.7

10.1.2. Polar questions

Polar questions, also called yes-no questions, are questions with an expected 'polar' answer as either 'yes' or 'no' (Dryer 2013b; Payne 1997). Geshiza has four major means for forming polar questions: two interrogative enclitics and two verbal prefixes.

Polar questions in Geshiza can be formed using the interrogative enclitics *=za* (glossing: Q; 10.1, 10.2) and *=jɔ* (glossing: Q; 10.3, 10.4), both following the verb. The enclitics belong to the group of modal discourse enclitics (see §8.6.5). The enclitic *=jɔ* fusions with the sensory evidential suffix *-ræ: ræ=jɔ > rɔ* (10.4; see §3.4.3 for vowel fusion).

Interrogative enclitic *=za*

(10.1) *ræl* *gæ-rtsʰen=**za**.*
furrow IPFV-count.PST.2PL=**Q**
Have you been counting the furrows? (RN: folktale)

(10.2) *ŋæ=ɲə* *mæsqʰe* *wsʰu=tʰɔ* *mtʰso-wa* *æ-ŋɛ* *ɕoŋ=**za**.*
1=PL sisters three=TOP lake-APUD one-CLF.place go.NPST.1=**Q**
Shall we three sisters go to a lakeside? (RN: folktale)

Interrogative enclitic *=jɔ*

(10.3) *<xuaɕʰo>,* *<xuaɕʰo>* *ra* *dæ-ste=**jɔ**.*
fertiliser fertiliser hit.INF PFV-finish.PST.2SG=**Q**
Have you finished applying the fertiliser? (RC)

(10.4) *wsʰu=je* *lxua-**rɔ***
three=GEN appear.3-**SENS.Q**
Will it be three (pieces of curtains)? (RC)

Alternatively, the verbal interrogative prefixes *æ-* (glossing: Q; 10.5, 10.6) and *-i-* (glossing: Q; 10.7, 10.8) are used for forming polar questions :

Interrogative prefix *æ-*

(10.5) *tsʰə* ***æ**-no-ræ.*
salt **Q**-taste-SENS
Is there enough salt (in the food)? (OU)

(10.6) *<ɕinxəu>* *gəndɔ* *ma-ræ.* *ɲi* ***æ**-ntʰjie-ræ.*
signal strongly NEG.EXV-SENS 2SG **Q**-hear.NPST.2SG-SENS

æ-*nt^{h}jie=ræ.*
Q-hear.NPST.2SG-SENS
The signal is weak. Do you hear me? Do you hear (me)? (OU)

Interrogative prefix *-i-*

(10.7) *ɲi* *ą̀mɔmə* *d-**i**-ɕ^{h}in.*
2SG soldier/army PFV-**Q**-go.PST.2
Did you go to the army? (UA)

(10.8) *g-**i**-vjin.*
IPFV-**Q**-hungry.2
Are you hungry? (set phrase: OU, UA)

The distribution of both the question enclitics and the interrogative prefixes is rigidly fixed. The former must always attach to the verb clause-finally while the latter occur at the modal slot of the Geshiza verbal template (see §4.3.2). Also, the interrogative prefixes and negative prefixes can never occur together. Consequently, a negative phrase cannot be made into a question by using the interrogative prefix *æ-*. The two question enclitics lack such restrictions and can co-occur with negation. In practice, unlike positive questions, negative questions rarely function as a means of acquiring information only. In both (10.9) and (10.10), the grandfather who uttered the questions is also criticising the granddaughter who refuses to eat her breakfast. Especially in (10.10), the negative interrogative serves a rhetorical function (see §10.1.7 for rhetorical questions).

(10.9) *dzi* *mi-ŋgi=**za***
food NEG-eat.2=**Q**
Don't you eat? (OU)

(10.10) *dzi* *mi-ŋgi=**jɔ***
food NEG-eat.2=**Q**
Don't you eat?! (OU)

=za and *=jɔ*
The two interrogative enclitics have slightly differing functions. The enclitic *=za* serves as the neutral tag question marker with usually a genuine intention of acquiring information from the addressee, while *=jɔ* expresses weaker interrogation. To illustrate, a fellow Balang villager uses *=za* to ask a woman about her son (10.11, following page). He has no previous knowledge concerning the situation, so the goal is simply to seek information, the enclitic *=za* being selected for this purpose:

(10.11) *joŋdzo̱ŋbə* *rə-ɕʰə-sʰi=za.*
PN PFV.DIR-go.PST.3-IFR=Q
Did *joŋdzo̱ŋbə* go (back home)? (OU)

In contrast, coding the question with *=jɔ* would indicate that there are some signs from which the speaker infers that *joŋdzo̱ŋbə* has gone home already (10.12). Consequently, as discussed in §10.1.7, the enclitic *=jɔ* often encodes rhetorical questioning, rather than intention of acquiring new information.

(10.12) *joŋdzo̱ŋbə* *rə-ɕʰə-sʰi=jɔ.*
PN PFV.DIR-go.PST.3-IFR=Q
Did *joŋdzo̱ŋbə* go (back home)? (ACC; see 10.11)

Lastly, in (10.13), the speaker had forgotten to give the house key to his father and he asks if his father consequently had to go to retrieve a key from a near-by relative. The speaker has heard that his father had to do so, so rather than seeking new information, he seeks to confirm what other people have already told him, using the interrogative enclitic *=jɔ:*

(10.13) *o* *ŋgərə=tsʰe* *tʰo* *ŋkʰuma* *ɕʰa* *næ-ɕʰin=jɔ,*
INTERJ PN=ASS.GEN DEM.LOC key take.INF PFV.DIR-go.PST.2=**Q**

bəsni *gædəɣi.*
today morning
Today morning, did you go to *ŋgərə*'s house to get the key? (RC)

æ- and *-i-*

The postulated Qiangic language branch is known for interrogative prefixes generally attached to the predicate (Luo 2016: 71). Such prefixes are also present in Tibetic languages. They are thus either cognates or an areal feature spread through language contact. Geshiza has two interrogative prefixes, *æ-* and *-i-*, used for forming the interrogative mood (see §8.5 for Geshiza moods), one of realis moods in Geshiza. The two differ in their distribution, not in their semantics. For this reason, they can be interpreted as allomorphs of the same interrogative morpheme, if not historically, at least in synchronic grammar. While *æ-* occurs with no verbal prefixes present, *-i-* requires a hosting verbal orientational prefix (see §8.2) it fuses to. The resulting fusions are illustrated in Table 10.2 on the following page:

Table 10.2. Orientational prefixes and vowel fusion with the interrogative prefix *-i-*

Prefix	Primary functions	Fusion with *-i-*
rə-	DIR, PFV, (IMP)[74]	*r-i-*
næ-	DIR, PFV, (IMP)	*n-i-*
wə-	DIR, PFV, (IMP)	*w-i-*
gæ-	DIR, IPFV, (IMP)	*g-i-*
dæ-	PFV, (IMP)	*d-i-*
zə-	PROSP	*z-i-*

The presence of the prefix, not the past versus non-past binary tense contrast determines the correct interrogative prefix. To illustrate, even though most verb forms *-i-* adjoins are in the past tense, the prospective requiring the non-past tense is not. Consequently, the verb form *zə-st^{h}e* (PROSP-finish.NPST.2SG) 'You are going to finish' changes into *z-i-st^{h}e* (PROSP-Q-finish.NPST.2SG) 'Are you going to finish?' (10.14):

(10.14) *e* *dzi* ***z-i-st^{h}e-mə.***
INTERJ food **PROSP-Q-**finish.NPST.2-EP
Hey, are you about to finish cooking? (RN: chronicle)

Polar question and the first person

Polar questions with an interrogative prefix have a special effect in the first person. Despite being superficially addressed to the speakers themselves, like other questions, they pragmatically address a second-person addressee, rather than expressing genuine auto-interrogation, for which Geshiza has a dedicated enclitic (see §10.1.6 for *=goŋ*). While many such questions seek information from the addressee, as in (10.15), they may also carry a permissive overtone. For instance, in (10.16, following page), the speaker is addressing a visiting seamer sewing curtains placed on the ground at the open space of the house, after having noticed that the curtains effectively block the pathway for many people. It is worth noting that this behaviour in Geshiza is far from language-specific, as 'Shall I shut the window?' in English shows.

(10.15) *<fænpiænmiæn>* ***g-i-ru.***
instant.noodles **PREF-Q-buy.1SG**
Shall I buy instant noodles. (RN: chronicle)

[74] The imperative meaning does not get realised in the interrogative context.

(10.16) *æzyæ* ***w-i-ŋʂtʰəu.***
medial.downriver.LOC **DIR-Q-pull. NPST 1SG**
Shall I pull them (the curtains) towards the east? (RC)

10.1.3. Tag questions

Tag questions prompt the interlocutor to confirm or disconfirm the statement uttered by the speaker. Geshiza primarily forms tag questions by combining the interrogative prefix *æ-* with the affirmative copula *ŋuə*, frequently followed by the sensory evidential *-ræ*: (see §9.2.2): *æ-ŋuə-ræ* 'Right?'. No other evidentials or epistemic suffixes appear in this position. Geshiza frequently uses tag questions for confirmation purposes (10.17, 10.18):

(10.17) *xə* *tɕʰa* *<fitɕi>=læ* *ma,* ***æ-ŋuə-ræ.***
DEM time airplane=FOC NEG.EXV **Q-COP.3-SENS**
At that time, there were no airplanes, right? (RN: family history)

(10.18) *xə* *tɕʰa* *tɕʰu* *gəɕʰo=ræ~ræ* *xaræ* *ɲi* *ŋæ=ɲə*
DEM time CONJ evening=LNK~RED CONJ 2SG 1=PL

ɕʰi *gæ-ʑæn,* ***æ-ŋuə-ræ.***
pick.up.INF DIR-come.2 **Q-COP.3-SENS**
Then in the evening you will come to pick us up, right? (speaker A)

ŋuə-ræ. *gəɕʰo* *ɕʰi* *gæ-tjan,* ***æ-ŋuə-ræ.***
COP.3-SENS evening pick.up.INF DIR-come.NPST.1 **Q-COP.3-SENS**
Yes. I will come to pick (you) up in the evening, right? (speaker B)

ŋuə-ræ. *æqɛ* *dzi=ɲə* *æ-tən* *n-ə-ŋgoŋ.*
COP.3-SENS together food=PL one-CLF.meal PREF-NACT-eat.1PL
Yes. Let's eat together a meal. (speaker A) (RC)

As the example above illustrates, tag questions play a prominent role in discourse. From the pragmatic viewpoint, they can also be labelled confirmation questions. They do not necessarily expect an answer from the interlocutor, but carry a pragmatic expectation of agreement, thus effectively expressing the speaker's a priori bias towards a certain answer. This contrasts with polar questions where such expectation is not present. Also, tag questions engage the addressee into the conversation, and are in this sense pragmatically often not questions at all. For instance, in (10.19), the speaker does know his age, but uses a tag question as a pragmatic device for engaging the addressee:

(10.19) *ŋa* *tʰævæ* *wsʰu-sqʰa-wtɕʰəu* *tjan-ræ=gæ,* ***æ-ŋuə-ræ.***
1SG now three-ten-six become.NPST.1-SENS=MOD **Q-COP.3-SENS**
I am now becoming thirty-six, right? (RC)

Geshiza also has an additional strategy for forming tag questions by using the negative counterpart of the copula *ŋuə,* namely *mŋa* (see §4.3.8 for the copulas) that frequently also hosts the interrogative enclitic *=jɔ*: *mŋa=jɔ*. Unlike tag questions with the affirmative copula that are confirmatory, tag questions with *mŋa* are contradictory in the sense that rather than seeking confirmation from the interlocutors, the speaker challenges them. To illustrate, in (10.20) speaker A claims that cows have not been going to a certain field to eat grass, but he gets challenged by speaker B. After rethinking the issue, he concedes and agrees with B. Also, in (10.21), speaker A asks B how to celebrate their daughter's birthday. B, however, claims that A has already been talking about the issue, and a plan to take the children to eat at the County Town has already been decided on:

(10.20) *tʰævæ=lɔ=tʰə* *ɾguæsʰə=tʰə* *gəndɔ* *gæ-mɛ-ɕʰə-sʰi* *tɕʰu.*
now=TERM=TOP cattle=TOP greatly IPFV-ASP.NEG-go.PST.3-IFR CONJ
Until now, the cattle have not greatly gone there (to eat grass), so... (there is still a lot of grass left there. (speaker A)

mægərja *ɾgo* *æ-ɾgəu* *dæ-ɕʰə-sʰi,* ***mŋa.***
recently cow one-CLF.general PFV-go.PST.3-IFR **NEG.COP.3**
Didn't a cow go there recent?! (speaker B)

mægə-ɾja *dæ-ɕʰə-sʰi.*
recently PFV-go.PST.3-IFR
(Yes, a cow) went there recently. (speaker A) (RC)

(10.21) *qʰæsʰi* *ætɕʰə-bɔtʰə* *<sənrə>* *n-van=goŋ.*
tomorrow what-like birthday AB-LV:do.1PL=MOD
How will we celebrate the birthday tomorrow? (speaker A; notice also the use of *=goŋ* for auto-interrogation discussed in §10.1.6)

məgərja *lŋa=ɲə=ke* *'braŋgu* *ɕoŋ'* *dæ-jin* ***mŋa,*** *braŋgu.*
recently child=PL=DAT TOPN go.NPST.1 PFV-say.2 NEG.COP.3 TOPN
Recently, didn't you say to the children that we will go to the County Town? (speaker B)

m.
INTERJ
Yeah. (speaker A; RC)

10.1.4. Alternative questions

Alternative questions interrogate between two options, out of which the addressee is to choose one. In Geshiza, alternative questions are formed by joining an interrogative clause with a declarative clause. This can be represented as ALTERNATIVE$_1$ *=za* ALTERNATIVE$_2$. S, A, P, T, R, and E are all eligible as the alternative, but of these, S (10.22) and P (10.23) are the most common ones. As shown in (10.23), alternative questions are usually replied with the same verb, selecting the preferred option:

(10.22) *æʑo* *vʑar* *tɕɔ=za* *rtso* *tɕɔ-ræ.*
mat.uncle warm.season be.pleasant.NPST=Q cold.season be.pleasant.NPST-SENS
Father-in-law, is the hot season (more) pleasant or the cold one? (see §2.2.2 for the climate in Geshiza Valley and the speaker's conceptualisation of the seasons) (RC)

(10.23) *mbrɛ* *ŋgi=za* *kʰe* *ŋgi.*
rice eat.2SG=Q bread eat.2SG
Do you eat rice or (Geshiza-style) bread? (see §2.6.4 for the Geshiza staple diet) (speaker A)

mbrɛ *ŋgu.*
rice eat.1SG
I will eat rice. (speaker B; OU)

Alternative questions with predicates

In addition to nominal constituents, alternative questions are formulated also at clause level. Two structures are attested: VERB$_X$=*za* NEG-VERB$_X$ and VERB$_X$=*za* VERB$_Y$. When a polarity pair of a single verb is used in both clauses, the structure questions whether a certain action or event takes (took) place or not, as examples (10.24, 10.25) demonstrate:

(10.24) *leska* *dæ-ɕʰin=za* *mɛ-ɕʰin.*
work PFV-go.PST.2=Q ASP.NEG-go.PST.2
Did you go to work or not? (OU)

(10.25) *dæ-ntje=za* *mɛ-ntje.* *vɕæpa* *æ-ntsʰæ*
PFV-hear.PST.2SG=Q ASP.NEG-hear.PST.2SG speaking one-CLF.little.bit

gæ-lɛ=mɔ.
IMP-LV:release.2SG=MOD
Did you hear (my Weixin message) or not? Speak a bit (i.e., give a reply)! (UA)

When two different verbs are used, the structure presents two different options, asking which of two different actions or events takes (took) place (10.26):

(10.26) *gæ-rgən=za* *dʑədə* *gæ-zdʑue.*
IPFV-sleep.2=Q letter IPFV-study.2SG
Are you sleeping or studying? (UA: WeChat message)

Typological-comparative remark
Unlike in Mandarin Chinese, for instance, pure X-neg-X questions, namely VERB_1 NEG-VERB_1 with merely juxtaposed predicates, do not exist in Geshiza. Showing semantical and formal similarity with alternative questions, the X-neg-X function in polar questions is a typological rarity, the areal distribution of which is almost exclusively restricted to China (Luo 2016: 7; see also König and Siemund 2007: 297).

Historical sources
Alternative questions with *=za* the function of which resembles 'or' may have historically given rise to the use of *=za* is polar questions discussed above. In other words, the first half of an alternative question is identical to *=za* polar questions. In sum, *=za* has likely evolved from an alternative correlative conjunction (see §4.9) still present in the language (10.27) into an interrogative enclitic:

(10.27) *e* *xə=nɔ* *ŋuə-ræ=mɔ.* *<tʰiænlon>* *ŋuə=**za***
INTERJ DEM=TOP.C COP.3-SENS=MOD Tianlong.car COP.3=**or**

<ʈʂʰetsə> *bɔlə* *ŋuə=ba.*
car about COP.3=MOD
It was one of those! It was probably a Tianlong or (a normal small) car. (RC)

10.1.5. Content questions

Geshiza content questions are formed by interrogative pro-forms and they are structurally symmetric with declarative clauses (10.28, following page). In other words, the interrogative pro-form remains *in situ* (notice the identical syntactic position of *sʰə* 'who' and *ɲi* 'you' in 10.29). Neither the interrogative enclitics nor the interrogative prefixes discussed above cooccur with the interrogative pro-forms. A list of interrogative pro-forms and detailed lexical information is given in §4.5.3.

(10.28) *tʰævæ* *<kuisui>* ***xazi*** *g-ə-kʰoŋ.*
now set.fee **how.much** PREF-NACT-give.NPST.1PL
How much are we paying in set fees now? (Speaker A)

ŋuæ-rjə
five-hundred
Five hundred (speaker B; RC)

(10.29) *'ɲi* *kʰɔ* *kəŋkən* ***sʰə=ke=kʰa*** *stɕæn'* *jə.*
2SG INTERJ at.all **who**=DAT=about fear.NPST.2 say.3
'Who on earth are you afraid of?' (he) said (speaker A).

a *'ŋa=tʰə* ***ɲi=ke*** *stɕoŋ=mde.'*
INTERJ 1SG=TOP **2SG**=DAT fear.NPST.1=MOD
'I am afraid of you.' (speaker B; RN: folktale)

Like polar questions addressing the speaker, content questions towards the speaker pragmatically concern the second person and thus cannot be seen as auto-interrogation. In (10.30), a chieftain puts his misbehaving steward-in-chief to a test with a question to which he himself knows the answer:

(10.30) *ŋa* ***sʰə=ke*** *stɕoŋ.*
1SG **who**=DAT afraid.NPST.1
Who am I afraid of? (RN: folktale)

10.1.6. Auto-interrogation

Auto-interrogation is defined here as an interrogative device for questioning the ego or by extension the ego and other people associated with it, expressed in Geshiza by the auto-interrogative enclitic *=goŋ* 'I wonder'. Unlike the interrogative enclitics used in polar questions, the auto-interrogative enclitic may co-occur with the interrogative prefixes and suffixes. In (10.31, next page), the speaker is talking with his wife about people in the countryside who have bought houses in Danba County Town. He wonders aloud when his family will be able to make a similar move. In (10.32), the speaker wonders aloud what to do. It is worth noting that while the answer is known to the speaker and addressee in rhetorical questions discussed in the following subsection, neither the speaker nor the addressee necessarily know the answer for an auto-interrogation (see 10.32), even though he or she might have their suspicions (see 10.33 where the speaker probably tilts towards the option that one horse is not enough for two). For this reason, I consider the label 'auto-interrogation' more appropriate for *=goŋ*.

(10.31) *ŋæ=ɲə=dʑe* *s^{h}ədə=nɔ* *rə* *tɕ^{h}oŋ=**goŋ.***
1=PL=TOP when=TOP.C buy.INF AUX.can.NPST.1PL=**Q**
I wonder when we will be able (to buy a house there)? (RC)

(10.32) *tɕ^{h}u* *ætɕ^{h}ə-bɔ* *doŋ=**goŋ***
CONJ what-like do.1PL=**Q**
So what shall we do, I wonder. (RC)

Auto-interrogation is not restricted to first person subjects exerting control over their own action. Geshiza speakers may autointerrogate themselves also concerning actions carried out by others on which they have no direct control (10.33, 10.34). Also, in auto-interrogative contexts, the interrogative prefix *æ-* may co-occur with a negative prefix that in other contexts cannot be used together with the interrogative prefixes.

(10.33) *rji,* *wne* *t^{h}i* *rji* *æ-rgəu* *æ-ŋi=**goŋ.***
horse two DEM.GEN horse one-CLF.general Q-be.all.right=**Q**
Is one horse enough for two, I wonder? (RC)

(10.34) *<tsoŋe>* *mɛ-stəu* *tɕ^{h}u* *<ləusə>=wo* *æ-mi-v-dæ=**goŋ.***
homework ASP.NEG-finish.PST.1SG CONJ teacher=ERG Q-NEG-INV-punish.3=**Q**
I haven't finished the homework, so I wonder if my teacher won't punish me. (MEE)

10.1.7. Rhetorical questions

Rhetorical questions contrast with information seeking interrogative strategies treated above by not eliciting answers. In other words, the poser of a rhetorical question does not expect a reply from the addressee, but makes an assertion that can be formally marked like an interrogative sentence. From the viewpoint of intersubjective distribution of information, both the speaker and the addressee generally know the answer for the rhetorical question. Thus, despite its formal coding, a rhetorical question is pragmatically speaking not a question at all.

Geshiza lacks a distinct morphosyntactic device dedicated solely for forming rhetorical questions. Also, rhetorical questions show no structural differences vis-à-vis other question types. To illustrate, the alternative question in (10.35, following page) does not concern whether the addressee has really turned from Tibetan into Chinese. Rather, being rhetorical in nature, it constitutes a mild form of criticism. Also, in (10.36), the male speaker's refusal to break a taboo and join a group of ladies to carry a birth gift takes the form of a rhetorical question, marked with the polar interrogative enclitic *=za*.

(10.35) *ɲi* *rdʑæ* *ŋuən=za* *bæ* *ŋuən.*
2SG Chinese COP.3=Q Tibetan COP.3
Are you a Chinese or a Tibetan?! (OU; said to a child)

(10.36) *ŋæ=je* *lŋamdzo=t^{h}ə* *mi-k^{h}o=bɔ.* *ŋɛ* *vdzi*
1SG=GEN baby.gift=TOP NEG-GIVE.NPST.1SG=MOD 1SG.GEN man

æ-ɣi=tɕe *lŋamdzo* *næ-mbəu=za.*
one-CLF.person=INSTR baby.gift DIR-carry.1SG=Q
I will not take the baby gift there. Will I as the only man carry the gift (among the ladies)! (see §2.4.3 concerning childbirth and birth gifts in Geshiza culture)

Interrogative pro-forms are also used in rhetorical questions. in (10.37), rather than genuinely asking for the identification who would buy the car in question, the question functions as a rhetorical device to indicate that the expensive car is not worth the money asked:

(10.37) *s^{h}u* *v-rə=je,* *ɣæ-ɲuæ.*
who.ERG INV-buy.3=MOD ten-five
Who buys (such a car) for fifteen (thousand yuan)?! (RC)

More than the standard interrogative enclitic *=za*, the weak interrogative enclitic *=jɔ* is frequently employed for rhetorical questioning. The reasons for this are clear against the discussion of the two enclitics' semantics (see §10.1.2 *=za* and *=jɔ*). Pragmatically speaking, many rhetorical questions include an undertone of criticism or joking. In (10.38), the addressee is looking for something obviously visible to the speaker, expressing jocular frustration. In (10.39), the grandfather has just noticed his grandchild climbing to the highest rooftop against his orders. Both instances clearly lack the function of seeking information from the addressee.

(10.38) *ɲi* *məu* *dæ-lu=jɔ.*
2SG eyes PFV-be.blind=MOD
Have you become blind?! (MEE)

(10.39) *jæɣuə* *rə-ɕin=jɔ*
rooftop DIR-go.NPST.2=Q
So you are going to the rooftop?! (OU)

Rhetorical questions as greetings

In addition, many conventional greetings of the Geshiza society are rhetorical questions. They seek no answers, but fulfil a pragmatic function in accordance with the Geshiza folkways. Some common greetings are given below together with the expected answers (10.40-10.43). Since the addressee is expected to answer in a socially determined manner, these questions seek no new information. These phatic expressions allow little formal variation and only occasionally does the addressee diverge from the expected response. For instance, on several occasions, I have heard the reply *æ-nts^{h}æ rka-ræ=bɔ* 'I am a little bit tired (after the day's work)' as a response to the question in (11.42):

(10.40) *d-i-tɕ^{h}ɔ?* → *dæ-tɕ^{h}ɔ.*
PFV-Q-be.comfortable.PST PFV-be.comfortable.PST
How are you? (used early in the day) I am good.

(10.41) *æ-rk^{h}o-ræ* → *mi-rk^{h}o-ræ*
Q-be.cold.NPST-SENS NEG-be.cold.NPST-SENS
Is it cold? (mostly in winter) It is not cold.

(10.42) *d-i-rk^{h}a.* → *mɛ-rk^{h}a.*
PFV-Q-be.tired.PST ASP.NEG-be.tired.PST
Are you tired (after working) I am not tired. (after working)

(10.43) *g-i-vjin?* → *gæ-mɛ-vjoŋ.*
IPFV-Q-be.hungry.2 IPFV-ASP.NEG-be.hungry.1
Are you hungry? (to a guest) I am not hungry.

10.2. Imperatives

This section is dedicated to Geshiza imperatives. The language is rich in imperatives with altogether five distinct ways to encode commands. After giving an overview of the system (§10.2.1), each imperative type is discussed in turn: the general imperative (§10.2.2); apprehensive (§10.2.3); prohibitive (§10.2.4); archaic imperative (§10.2.5); and the optative used in non-canonical imperatives (§10.2.6). The chapter concludes with a brief mention of other command strategies and (§10.2.7) and a discussion on imperatives and other grammatical categories (§10.2.8).

10.2.1. Overview

In Geshiza, imperatives occur with a very high frequency in typically short utterances. They are some of the most frequent verb forms children are exposed to. Counting the prohibitive separately, the language has four types of imperative constructions: general imperative, apprehensive imperative, prohibitive, also called negative imperative, archaic imperative. Gaps in these are covered by the use of the optative. All imperative constructions address the first person, save the optative used as a command strategy, available for all three persons.

In all cases, the imperatives are expressed through verbal inflection: both as prefixes (general imperative, prohibitive, optative) and as suffixes (apprehensive imperative and archaic polite imperative that is double marked and also includes a prefix). The imperatives make less categorical distinctions than declarative speech acts: for instance, no general imperatives addressed to the first person are allowed, and the whole category of evidentiality is absent in imperative constructions. Unlike in the related Stau, the formation of all Geshiza imperative forms is entirely regular with no suppletion, including the movement verbs *ʑe* ~ *ʑæ* (V2b) 'to come' and *ɕə* (V2b) 'to go'.

This chapter discusses only imperative structures that possess dedicated grammatical strategies for their expression. Animal calls, uninflected one-word commands addressed to animals, are interjections in their word class and discussed in §4.12.2.

10.2.2. General imperative

Geshiza general imperative is used to give requests and commands to the addressee. Geshiza allows only what has been dubbed the 'canonical' imperative (Aikhenvald 2010: 4), namely a second person addressee-directed imperative (10.44, 10.45). Consequently, applying the construction for the first and second persons gives ungrammatical results. The 'missing persons' in the paradigm are covered by the optative (see §10.2.6).

(10.44)

<tɕetɕe>	*qʰæsʰi*	*va*	*ntɕoŋ-mə*	*tɕʰu*	*xo*
older.sister	tomorrow	pig	butcher.NPST.1PL-EP	CONJ	DEM.LOC

næ-ʑæn.
IMP-come.2
Older sister, tomorrow we will butcher the pigs, so come here (to help)! (RC: phone call; see §2.5.2 concerning the annual butchering)

(10.45)

mbrɛ	*æ-ntsʰæ*	***næ-ŋgən=mɔ.***
rice	CLF.little.bit	**IMP-eat.2PL=MOD**

Eat some rice! (OU)

Since Geshiza verbs regularly index person, the general imperative predominantly appears without a superfluous subject pronoun. The second person pronouns may nevertheless coexist with the imperative (10.46). Broadly speaking, such instances mirror Geshiza declarative clauses where a pronominal argument is often omitted.

(10.46) *ɲi* *wə-tʰi=mɔ.*
2SG **IMP-smoke.NPST.2SG=**MOD
Smoke this! (RN: folktale)

Argument indexation in general imperatives

Table 10.3 summarises verb classes and argument indexation in Geshiza general imperative. Imperatives can only be formed for verbs in classes 2b, 3a, 3b and 4. In other words, stative verbs (1a, 2a) and intransitive verbs incompatible with a human subject (1b) are also incompatible with forming the general imperative.

Table 10.3. General imperative, verb classes, and argument indexation

Transitivity	Verb classes	Imperative allowed	Argument indexation
Intransitive	1a	✗	✗
	1b	✗	✗
	2a	✗	✗
	2b	✓	2 (*-n*)
Transitive	3a	✓	2SG (*-i*), 2PL (*-n*)
	3b	✓	2SG (*-i*), 2PL (*-n*)
	4	✓	2SG (*-i*), 2PL (*-n*), 1 (*-ŋ*), INV (*v-*)

Argument indexation in the general imperative follows the general pattern in the language, maximally allowing the indexation of the second person in both singular and plural, and also the first person when the second person acts on it (see §4.3.3 for an overview of argument indexation in Geshiza and §7.2.3 for hierarchical alignment). Since Geshiza verb morphology does not distinguish number in intransitive verbs, singular and plural imperatives appear identical for class 2b intransitive verbs with the ending *-n*: *wə-ndzon* (IMP-sit.2) 'Sit down!'. Transitive verbs in classes 3 and 4 differentiate between singular and plural imperatives through the endings *-i* (singular) and *-n* (plural): *næ-ŋgi* (IMP-eat.2SG) *næ-ŋgən* (IMP-eat.2PL) 'Eat!' The inverse form (2>1) 'you do something for me/us!' appears in the verbs of class 4, when this is pragmatically feasible (10.47, following page). In sum, the language morphologically distinguishes singular and plural imperatives in the transitive context.

(10.47) *gəu* *gæ-ŋo-s^{h}i* *tɕ^{h}u* *xe* *ɲo=ræ~ræ* *<tʂ^{h}etsə>*
leg IPFV-hurt.3-IFR CONJ DEM.GEN after=LNK~RED car

<ɕəutʂe>=ræ *<mot^{h}otʂ^{h}e>* *bɔ-t^{h}ə=ke* ***'dæ-v-loŋ'*** *dæ-joŋ* *tɕ^{h}u.*
small.car=LNK motorbike like-DEM=DAT **IPF-INV-let.1** PFV-say.1 CONJ
My feet hurt, so afterwards, we told (the drivers of) cars, small cars, motorbikes, and the like, 'Let us in!' (RN: chronicle; Hitchhiking with small compensation often expected is a common way to move around short distances in the Geshiza homeland.)

As in declarative clauses, reduplication (see §4.3.5.5) offers another strategy to index number. In intransitive verbs, its use makes the number explicit: *dæ-ɕin* 'Go away (unspecified in number)!' vs. *dæ-ɕə~ɕin* 'Go away (plural)!'; *dæ-ʑæn* 'Come! (unspecified in number)!' vs. *dæ-ʑə~ʑæn* 'Come (plural)!'. In practice, compared with declarative clauses, reduplication rarely occurs in imperative contexts that are usually clear concerning the addressees.

Verbal semantics and the limits for forming general imperatives

For semantic reasons, verbs describing uncontrollable action generally fail to appear in the imperative, examples provided in Table 10.4 below. As can be seen, verb class itself is not the determining factor, rather than verbal semantics. Nevertheless, the verb classes and controllability correlate strongly: the higher the class, the smaller the ratio of non-controllable verbs, and thus the smaller the number of verbs incompatible with general imperative. Ergo, among the verb classes compatible with general imperative formation in general, many individual verbs lacking such formation are found in the intransitive 2b class. Valency-increasing, such as causativisation, typically leads to increased control, and thus acceptance of the general imperative: *dæ-st^{h}æ-p^{h}i* (IMP-finish.NPST.2-AUX.CAUS.NPST.2) 'Finish!' Also, the optative (see §10.2.6) can be used as a substitute when a general imperative is grammatically incorrect for a verb the action of which is not controllable by the subject: **næ-lɣan* intended meaning 'Go crazy!', *n-a-lɣan* 'I wish you go crazy!'

Table 10.4. Examples of verbs incompatible with the general imperative

Verb	Verb Class	Gloss
lmæmæ	2b	to cry
lmə	4	to forget
lɣa	2b	to be(come) crazy
ŋk^{h}ræ	2b	to shiver
st^{h}æ	3b	to finish, get ready

Use of verbal prefixes in general imperatives

From the formal viewpoint, the general imperative is formed with the second person verb forms and an orientational verbal prefix. For the sake of clarity, I gloss these orientational prefixes in this context as IMP. The host verb always appears in the non-past tense. As discussed in §8.2, while in verbs encoding spatial deixis the prefix is determined by the desired spatial setting, in other verbs, the appropriate prefix has become conventionalised. In the latter instance, each imperative prefers a certain prefix, but free variation also takes place. The prefixes that appear in imperatives are *wə-, dæ-, gæ-*, *næ-*, *rə-*, illustrated in Table 10.5. Among prefixes from slot -5 (see §4.3.2), the prospective prefix *zə-* (see §8.3.3) is incompatible with forming general imperatives.

Table 10.5. Prefixation in Geshiza general imperative with non-movement verbs

Prefix	Verb	Gloss	Gen. imperative	Gloss
rə-	*v-sti* (V3b)	to put, place	*rə-sti*	Put it (on sth)!
	nt^{h}a (V3b)	to wear (e.g. bracelets)	*rə-nt^{h}e*	Wear (it)!
næ-	*bəu* (V2b)	to get down	*næ-bəun*	Get down!
	v-ræ (V3b)	to write	*næ-rɛ*	Write (it down)!
wə-	*ndzo* (V2b)	to sit, stay	*wə-ndzon*	Sit/stay!
	v-t^{h}i (V3b)	to drink	*wə-t^{h}i*	Drink (it)!
dæ-	*v-k^{h}uæ* (V3b)	to cut	*dæ-k^{h}ue*	Cut (it)!
	jə (V2b)	to say	*dæ-jin*	Say (it)!
gæ-	*rgə* (V2b)	to sleep	*gæ-rgən*	Sleep!
	v-rə (V3b)	to buy	*gæ-ri*	Buy (it)!

Sometimes the general imperative takes a different prefix from the conventionalised prefix that surfaces in the perfective aspect (see §8.3.1), identical behaviour also reported from the related Yonghe Qiang language (Sims and Genetti 2017: 131). To illustrate, the verb *v-t^{h}i* (V3b) 'to drink' forms the imperative with the prefix *wə-* (10.48), but in the perfective, it generally uses the orientationally neutral standard perfective prefix *dæ-* (10.49). Similarly, the verb (V4) 'to eat' uses *næ-* in the imperative (10.50) and prefers *dæ-* in the perfective (10.51).

(10.48) *dʑa* ***wə-t^{h}i.***
tea **IMP-**drink.NPST.2SG
Drink (some) tea! (UA)

(10.49) *dʑa* *lə* *gə-ʑæl* ***dæ**-tan.*
tea again DISTR-CLF.cup **PFV**-drink.PST.1PL
We drank a cup of tea each again. (RN: chronicle)

(10.50) *e* *pʰɔɕʰa* ***næ-ŋgi.***
DEM pork **IMP-eat.2SG**
Eat this pork! (RN: folktale)

(10.51) *jæɣwə* *qʰælo=ɲə* ***dæ-ŋgoŋ.***
rooftop walnut=PL **PFV-eat.1PL**
We ate walnuts on the rooftop. (RN: chronicle)

Movement verbs, for instance *ɕə* (V2b) 'to go', *ʑæ* ~ *ʑe* (V2b) 'to come', exhibit the widest variety of allowed prefixing in the general imperative, since all orientational prefixes can be used, depending on the direction of the ordered projection seen from the deictic centre. This is shown in Table 10.6 below. When moving away from the deictic centre with no regard to direction, the orientationally neutral orientational prefix *dæ-* appears frequently. This often takes place when the speaker is irritated, and simply wants the addressed person to move out of sight regardless of the direction: *dæ-ɕin* 'Go away (no matter where, just disappear)!' When moving towards the deictic centre, use of the prefix *dæ-* is far less frequent, since the spatial relationship between the orderer and the ordered is clear in most cases and can thus be encoded into the imperative by the appropriate orientational prefix. For instance, *gæ-ʑæn* 'Come here!' implies that the deictic centre where the speaker issues the order is located west from the ordered.

Table 10.6. Prefixation of *ɕə* 'to go' and *ʑæ* 'to come' in the general imperative

Gen. imperative of *ɕə* 'to go'	Gen. imperative of *ʑæ* 'to come'	Orientation
dæ-ɕin	*dæ -ʑæn*	undetermined
rə-ɕin	*rə-ʑæn*	away from the river or up
næ-ɕin	*næ-ʑæn*	towards the river or down
wə-ɕin	*wə-ʑæn*	downriver
gæ-ɕin	*gæ-ʑæn*	upriver

Use of the continuative aspect in general imperative

Aspectual distinctions are generally neutralised in Geshiza imperatives. The continuative constitutes an exception to this general rule. The continuative aspect (see §8.3.4) marked with the prefix *jæ-* appears with the general imperative. In such instances, the speaker urges the addressee to continue in the pre-existing state. In (10.52), the speaker is cleaning the floor with

a broom, telling the author not to move when he is about to do so to facilitate the cleaning. In (10.53), the speaker tells the author not to go back upstairs to get his mug, instead of using a new one from the kitchen. In general imperatives with the continuative aspect, the general imperative prefix must be present for the utterance to convey the tone of an imperative.

(10.52) *mi-ɣa* *mi-ɣa.* *ɲi* ***jæ****-wə-ndzon.*
NEG-be.problem NEG-be.problem 2SG **CONT-**IMP-sit.2
It is fine (even if you don't move). Keep on sitting (there!) (UA)

(10.53) ***jæ****-rə-sti-tɕ^{h}i=mde.* *rə-ve* *rka-ræ.*
CONT-IMP-place.NPST.2-AUX.can=MOD DIR-go.SUPPL.3.INF be.tiring.NPST-SENS
Leave the mug (upstairs); it is fine! Going (back) up is tiring! (UA)

Modifying the tone of a general imperative

General imperatives are frequently used together with modal discourse enclitics *=mde*, *=mɔ*, and *=je* (see §8.6.5). Vis-à-vis the base form with no enclitics (10.54), the enclitic *=mɔ* (10.55) softens the tone of the general imperative, while *=mde* generally strengthens it (10.56). To charge even more power to the command, the aggressive-exclamative *=je* is used (10.57). Obviously, the perceived tone of an imperative is not only determined by such enclitics, but by the actual tone the speaker uses when issuing a command. For this reason, the description above illustrates a tendency, not an absolute system. The speaker may also quote his/herself by using a direct speech construction [command] *joŋ*, literally [command] I say! (10.58). Such 'self-quotation' adds some emphasis and power to the command.

(10.54) Base form:
lɔ *wə-ŋkæn.*
again IMP-turn.back.NPST.2
Turn back! (ACC; see 10.56)

(10.55) Softened:
lɔ *wə-ŋkæn=****mɔ.***
again IMP-turn.back.NPST.2=**MOD**
Turn back (please)! (ACC; see 10.56)

(10.56) Strengthened:
lɔ *wə-ŋkæn=****mde.***
again IMP-turn.back.NPST.2=**MOD**
Turn back!! (RN: folktale)

(10.57) Further strengthened:

lɔ *wə-ŋkæn=**je.***
again IMP-turn.back.NPST.2=**MOD**
Turn back (or else)! (ACC; see 10.56)

(10.58) Strengthening through self-quotation:

‘e *t^hi* *bærma=ræ* *ɲu* *gæ-rjæ~rjɛ’* ***joŋ.***
DEM DEM.GEN among=LNK 2SG.ERG IMP-RED~ask.2SG **say.1**
Ask among them, I am saying! (RC; notice also how reduplication in the verb indicates plurality of the P argument, namely several people that need to be asked)

The general imperative is occasionally seen as very direct and impolite, especially when the utterers seek benefit, such as help, from the addressee. The quantifier classifier *æ-nts^{h}æ* ‘a little bit’ (see §4.7.5) and the bound deontic auxiliary *-tɕ^{h}i* ‘can, be acceptable’ (see §8.6.4) are used to soften the tone of an imperative, occurring either separately (10.59) or together (10.60):

(10.59) *‘ɲi* *rji* ***æ-nts^{h}æ*** *dæ-s-tɕan.’*
2SG.GEN horse **one-CLF.little.bit** IMP-CAUS-ride.NPST.1
Let me ride your horse,’ he said. (RN: folktale)

(10.60) *æmɲi* *<tuænliæn>* ***æ-nts^{h}æ*** *gæ-vi-**tɕ^{h}i**=bɔ.*
grandfather exercise **one-CLF.little.bit** IMP-LV:do.2-**AUX.can**=MOD
Please move around a little bit! (OU; respectfully addressing an elderly male)

Clause types and the general imperative

Looking at the general imperative at the clause level, it appears only in main clauses, never surfacing in subordinate clauses. Also, since Geshiza reported speech quotes the original speaker verbatim without adjustments, the general imperative appears as an embedded quote in an unaltered form (11.61). These two restrictions apply equally to the apprehensive and negative imperative types introduced in the following sections.

(10.61) *xo=je* *ʐazæts^{h}oŋ=ɲə=ke* *stæ=ke* *‘gə-nts^{h}æ*
DEM.LOC=GEN family.member=PL=DAT all=DAT DISTR-CLF.little.bit

næ-ŋgən=mɔ’ *d-ə-jə.*
IMP-eat.1PL=MOD PREF-NACT-say.3
There (at home), we tell the family members, we tell everyone: ‘Eat a little bit each!’ (RN: procedure/ethnographic description)

Societal functions of the general imperative

Some everyday Geshiza speech formulae originate from the general imperative. For instance, when departing from the place of a person who continues to carry out a task, the greeting phrase *ɕʰiɕʰi gæ-de* (slowly IMP-do.2SG) lit. 'Do it slowly!' is commonly uttered. Similar developmental process has taken place in English; for example, the middle English imperative phrase *fare wel* evolving into a common expression uttered at parting.

Historical origins of the general imperative

As discussed above, Geshiza uses largely the same set of verbal prefixes for both the perfective aspect and the general imperative. Analysing languages in the Ethnic Corridor of South-Western China, Sims and Genetti (2017: 134-137) found that except Queyu, all 12 of the surveyed languages require directional (i.e. orientational in the terminology of this grammar) markers both in the perfective aspect and in the imperative mood. The authors propose a grammaticalisation path directional > perfective > imperative, also relying on van der Auwera, Malchukov, and (2009) showing that imperatives are generally result-oriented and carry the pragmatic function to 'appeal to the hearer(s) to achieve something, to perform the action as a whole and not merely to be engaged in the activity or part of it'. At first, the hypothesis appears plausible, Geshiza reflecting this proposed regional grammaticalisation path of many Qiangic languages. Significant counterevidence, however, is offered by Gyalrong languages where perfective and imperative employ different stems: II and III, respectively.

Typological remarks

Geshiza-like imperatives with verbal inflection are frequently attested in synthetic languages (Aikhenvald 2010: 75). In addition, particles and a special set of pronouns are used for forming imperatives in the languages of the world (ibid.). Also, it is widely known that imperative forms tend to be the shortest verb forms in languages cross-linguistically, but Geshiza diverges from this tendency, the basic infinitive being the fundamental verbal form (see §4.3.6).

10.2.3. Apprehensive imperative

The apprehensive imperative ('lest') in Geshiza presents a warning when the outcome of a potential event is seen as undesirable by the speaker, the speaker thus urging the addressee to avert it. Apprehensive imperative is encoded with the suffix *-ɣa* (glossing: APPR) attaching to the non-past stem of verbs. The Apprehensive Imperative phrase has a fixed structure replicated in virtually every instance of its appearance: V.2-*ɣa*=*bɔ*, namely a second person of form of a verb followed by the apprehensive imperative suffix and the modal discourse enclitic =*bɔ* (see §8.6.5).

Many instances of the apprehensive imperative have become conventionalised utterances at specific locations. (10.62) is frequently addressed to people climbing the narrow stairs of a Geshiza house while (10.63) is said to people on the rooftop that functions as a social space.

(10.62) *ŋɣædzon-**ɣa**=bɔ.*
stumble.2-**APPR**=MOD
Don't stumble!/(Be careful) lest you stumble!/(If you are not careful,) there is a danger that you stumble!/Watch out for stumbling! (OU)

(10.63) *dzan-**ɣa**=bɔ.*
fall.down.ANTICAUS.2-**APPR**=MOD
Don't fall down!/(Be careful) lest you fall down!/(If you are not careful,) there is a danger that you fall down!/Watch out for falling down! (OU)

The apprehensive imperative is nevertheless not merely a conventional device for a small number of repeated everyday warnings, but used freely in diverse discourse contexts. For instance, in (10.64), a speaker reports the warning her doctor had given her:

(10.64) *'dzi* *mæŋe* *lo~lo* *ŋgi-**ɣa**=mɔ'* *jə.*
food too RED.ADJZ~hot eat.2SG-**APPR**=MOD say.3
S/he (the doctor) said: 'Don't eat too hot food!' (OU)

Like in the general imperative, an independent subject pronoun is allowed also in the apprehensive imperative (10.65):

(10.65) ***ɲi*** *mŋa-me* *de-**ɣa**=bɔ.*
2SG NEG.COP.3-NMLZ:P do.2SG-**APPR**=MOD
Don't do anything bad (while I am away; a joke)! (UA)

From a pragmatic viewpoint, warning, namely the central function of the apprehensive imperative, may entail an exhortation to the addressees towards an action, rather than forbidding it from them. For instance, in (10.66), a common Geshiza phrase during mealtimes, rather than being forbidden from becoming hungry in a manner resembling the prohibitive, the addressee is ordered to eat more, thus pragmatically similar to the general imperative:

(10.66) *vjin-**ɣa**=bɔ.*
hungry.2-**APPR**=MOD
Don't get hungry! (i.e. Eat more!) (UA)

Argument indexation in apprehensive imperatives
Like the general imperative, the argument indexation properties of the apprehensive imperative reflect the general properties of the Geshiza verbal system. Unlike the former, however, the apprehensive imperative is compatible with all the verb classes, including stative verbs (classes

1a, 2a) and intransitive verbs with non-human subjects (class 1b). Table 10.7 below offers a summary of the apprehensive imperative with argument indexation and verb classes:

Table 10.7. Apprehensive imperative, Geshiza verb classes, and argument indexation

Transitivity	Verb classes	Imperative allowed	Argument indexation
Intransitive	1a	✓	✗
	1b	✓	✗
	2a	✓	2 (*-n*)
	2b	✓	2 (*-n*)
Transitive	3a	✓	2SG (*-i*), 2PL (*-n*)
	3b	✓	2SG (*-i*), 2PL (*-n*)
	4	✓	2SG (*-i*), 2PL (*-n*), 1 (*-ŋ*), INV (*v-*)

On occasion, the apprehensive appears with a non-second person subject (10.67-10.69). These apprehensive commands are nevertheless pragmatically addressed to the second person, not to the person that is grammatically encoded. Consequently, even though all first, second, and third person subjects are present in the apprehensive, all these commands still address the second person in pragmatic terms. For instance, in (10.68), the verb indexes the first person, yet the utterance is addressed to the second person: 'There is a chance that I will forget, so remind me!' In a similar fashion, in (10.69), the third person subject *wəzə* 'bird' is indexed to the verb, but the utterance addresses the second person: 'There is a chance that birds come to eat the corn that is being dried on the rooftop, so make sure that this does not happen while I am away!':

(10.67) *v-s^{h}oŋ-**ya**=bɔ*
INV-kill.NPST.1-**APPR**=MOD
Be careful not to kill me (as a joke)! (UA)

(10.68) *ŋa* *lmu-**ya**=bɔ.*
1SG forget.1SG-**APPR**=MOD
Lest I forget it (so remind me). (UA)

(10.69) *wəzə* *<jime>* *ŋgə-**ya**=bɔ.*
bird corn eat.3-**APPR**=MOD
Make sure that the birds don't eat the corn! (UA)

Historical origins of the appehensive imperative

A polarity shift has taken place in the apprehensive imperative construction. Even though the lacks overt negative marking, it has become semantically negative. This makes the examination of its sources a highly interesting topic.

The apprehensive imperative suffix *-ɣa* is etymologically related to the verb *ɣa* (V1b) challenging to translate, conveying the idea of 'to be possible to happen, to have a problem', commonly used in the negated form: *mi-ɣa* 'No problem'. The verb is the source of the potential suffix *-ɣa* (see §8.6.3 for the potential construction). As this subsection has shown, Geshiza prohibitive is particular in having no formal negative marking. Pakendorf and Schalley (2007) argue that in cross-linguistically rare cases, affirmative markers of possibility may evolve into prohibitives along the following grammaticalisation path, apprehension being an intermediary stage (10.70):

(10.70) possibility > apprehension > warning > prohibition

Pakendorf and Schalley's (2007) grammaticalisation hypothesis predicts the existence of intermediary stage languages. Examining the grammaticalisation pathway, Geshiza is one of such predicted languages lying in the middle of the pathway. The language has a dedicated marker for prohibitives (see §10.2.4) distinct from the apprehensive imperative. In all, in addition to five languages identified by Pakendorf and Schalley (2007), the apprehensive imperative in Geshiza provides a typologically rare case aligning with Pakendorf and Schalley's hypothesis and going against the general assumption of modality proceeding unidirectionally from deontic to epistemic meaning (see e.g. Heine and Kuteva 2002: 116 for the assumption).

10.2.4. Prohibitive (negative imperative)

Prohibitive is a grammatical encoding of prohibition, and also termed as negative imperative by some scholars. In Geshiza the prohibitive is used as a reaction to an observed ongoing state (cessative function) or to a state anticipated to take place based on evidence, e.g. seeing someone prepare for action (preventive function). The prohibitive is thus pragmatically stronger than the apprehensive imperative discussed above, the use of which encourages the addressee to avert an undesirable event that is merely potential in the mind of the speaker.

In Geshiza, imperatives are negated differently from the strategies of standard negation of declarative verbal main clauses. Since imperatives pertain to the domain of irrealis, in negative imperatives or prohibitives, the irrealis negator *-di-* ~ *-dʑi-* (see §11.2.3) is placed between the verb and its orientational prefix functioning as the general imperative marker (10.71-10.73, next page). Geshiza thus negates general imperatives with the irrealis negator: *dæ-ɕin* 'Go!' > *dæ-di-ɕin* 'Don't go!' Like general imperatives, prohibitives tend to be very short utterances: *dæ-di-ɣuəɣuən=bɔ.* (IMP-IRR.NEG-argue.2=MOD) 'Do not argue!' As illustrated by the examples below, modal discourse enclitics also occur frequently with the prohibitives:

(10.71) *xaræ* *sme=wo* ***'dæ-di-ɕin'*** *jə-ræ* *'ŋɛ*
CONJ woman=ERG **IMP-IRR.NEG-**go.NPST.2 say.3-SENS 1SG.GEN

vdʑæ *ma-ræ'* *jə.*
companion NEG.EXV-SENS say.3
The woman said: 'Don't go! (If you go,) I have no companion.' (RN: folktale)

(10.72) *næ-ŋgi.* *<mərmər>* ***dæ-di-ɕin=mdɛ.***
IMP-eat.2SG cat **IMP-IRR.NEG-**go.NPST.2=MOD
Eat it! Don't go away, cat! (OU; talking to a cat after giving it some food)

(10.73) *ɕʰældæn* *noŋ* *tɕʰæræ* *mi-ndʑə.* ***dæ-di-tʰi.***
bottle inside thing NEG-EXV.3 **IMP-IRR.NEG -**drink.NPST.2SG
There is nothing inside the bottle! Don't drink! (OU; addressing a baby)

Argument indexation in the prohibitive

Table 10.8 summarises argument indexation, verb classes, and the acceptability of the prohibitive. In argument indexation and compatibility with verb classes, the prohibitive mirrors the general imperative on which it is formed. Semantic reasons impede intransitive class 2 verbs describing uncontrollable action from appearing in the general imperative. The prohibitive is laxer in this respect: *lmæmæ* 'to cry', **dæ-lmæmæ* intended meaning 'Cry!', *dæ-di-lmæmæ* 'Don't cry!'; *lmə* 'to forget', *dæ-lmi* 'Forget!', *dæ-di-lmi* 'Don't forget!'.

Table 10.8. Prohibitive, Geshiza verb classes, and argument indexation

Transitivity	Verb classes	Imperative allowed	Argument indexation
Intransitive	1a	✗	✗
	1b	✗	✗
	2a	✗ (marginal)	2 (*-n*)
	2b	✓	2 (*-n*)
Transitive	3a	✓	2SG (*-i*), 2PL (*-n*)
	3b	✓	2SG (*-i*), 2PL (*-n*)
	4	✓	2SG (*-i*), 2PL (*-n*), 1 (*-ŋ*), INV (*v-*)

While stative verbs are incompatible with prohibitive formation, one attested exception concerns the N V set expression *xæmba tɕʰæ* (greed be.big) 'to be greedy' in which the stative verb allows for prohibitive formation (10.74, following page):

(10.74) *xæmba* ***dæ-di-****tɕʰæn.*
greed **IMP-IRR.NEG-**be.big.NPST.2
Don't be greedy! (MEE)

Typological remark
In the typological categorisation of prohibitive constructions by van der Auwera & Lejeune (2005), Geshiza exhibits type 2, namely 'the verbal construction of the second singular imperative and a sentential negative strategy not found in (indicative) declaratives.[75] In other words, the prohibitive uses the general imperative construction, but employs a different, irrealis negation strategy not found in the context of indicative declaratives. In the survey of 495 languages, this strategy with the representation of 182 occurrences (37% of total) is the typologically most common prohibitive strategy. Since the strategy is geographically typical for South-East Asia and the Far East, Geshiza prohibitive exhibits areal typological features.

10.2.5. Archaic imperative

In addition to the imperative constructions introduced above, an archaic imperative appears in Geshiza folklore. The younger speakers no longer use it in everyday conversation, but some can nevertheless recognise the structure as an imperative. Since the elderly act as the remaining guardians of the folklore, it is likely that with a generational change and oblivion of the bulk of traditional stories, the structure falls out of use altogether (see §2.9.4 on the future of Geshiza).

The archaic imperative has a direct tone considered impolite. If it were used, the Geshiza who still remember the construction report it suitable for commanding children, not one's superiors, such as leaders. Only second person affirmative forms are found. The consultants are unable to produce the construction in negative clauses or other persons. Clear evidence is thus lacking whether these limitations were originally present in the construction or result from structural simplification before the imminent disappearance of this structure from the language.

Formally, the archaic imperative has two loci of marking. It builds on a verbal stem hosting the orientationally neutral prefix *dæ-* that is also used in general imperatives, together with the archaic imperative suffix *-ɣuən* (glossing: ARCH.IMP): *ɕə* 'go.INF' > *dæ-ɕə-ɣuən* 'Go!' This suffix occurs paradigmatically in slot 2 of the verb template (see §4.3.2) that contains Geshiza argument indexation suffixes. Synchronically I consequently interpret it as a dedicated second person indexation marker used only in the context of the archaic imperative. It bears noting that the suffix ends with *n, -n* also being attested for indexing the second person in Geshiza (see §4.3.3.1). This, of course, can be purely coincidental.

[75] All four typological types in van der Auwera & Lejeune's model are as follows: 1. prohibitive using the verbal construction of the second singular imperative and a sentential negative strategy found in (indicative) declaratives; 2. prohbitive using the verbal construction of the second singular imperative and a sentential negative strategy not found in (indicative) declaratives; 3. prohbitive using the verbal construction of the second singular imperative and a sentential negative strategy not found in (indicative) declaratives; 4. prohbitive using the verbal construction of the second singular imperative and a sentential negative strategy not found in (indicative) declaratives.

The archaic imperative is illustrated with examples (10.75-10.76), both of which come from Geshiza folklore:

(10.75) *e* *t^hu=wo* *ŋɛ=je* *<sənmin>=$t^hə$* *xu=wo* *ə*
DEM DEM.ERG=ERG 1.GEN=GEN life=TOP DEM.ERG=ERG HES

<tɕu> *dæ-van* *oja* *$tɕ^hu$* *æ$tɕ^hə$* *vɕe=na*
saving PFV-LV:do.1 INTERJ CONJ what want.NPST=CONC

dæ-k^ho-ɣuən=*mɔ.*
IMP-give.INF-**ARCH.IMP**=MOD
This one saved my life, so whatever he wants, please give him! (an *ʑɕ$^hə$* spirit addressing parents after being saved by a hunter; see §2.7.1 for a brief discussion on the spirits) (RN: folktale)

(10.76) *e* *t^ho* *s^ho* *wnæ-ws^{h}u-sni* *$tɕ^ha$=ræ* *be* *lxua-ræ.*
DEM DEM.LOC more two-three-CLF.day time=LNK flood appear.3-SENS

ə *p^he* *æ-ŋɛ* *æ-nts^{h}æ* ***dæ-ɕə-ɣuən.***
HES other one-CLF.place one-CLF.little.bit **IMP**-go.INF-**ARCH.IMP**
In two-three days, there will be a flood here (in this village). Please go somewhere else! (RN: folktale)

The archaic imperative is compatible with the modal discourse enclitics (10.75). In elicited examples, in addition to the orientationally neutral prefix *dæ-*, other orientational prefixes also surface (10.77; see §10.2.2. for the use of verbal prefixes in the general imperative). Since such forms fail to surface in non-elicited data, their reliability is less certain.

(10.77) *æ-lə* ***wə-ʐæ-ɣuən***=*mɔ.*
one-CLF.INDEF **IMP.DIR**-come.INF-**ARCH.IMP**=MOD
Come here! (towards the downriver) (MEE)

10.2.6. Optative used for commands

The imperative constructions discussed earlier in this chapter all pragmatically concern the second person. Nevertheless, commands can also be directed towards the first and third person by using the optative (see §8.5.5) marked by the optative prefix *-a-* that fuses into the verbal prefix, the person indexation following the conventional patterns for the first and third persons. For instance, in (10.78, following page), the rich greedy person in a folktale aspires to become even richer while (10.79) constitutes a prayer that requests health for all people in the village:

(10.78) non-canonical imperative for the first person by means of the optative:

ɲjæ	*kʰɔ*	*tʰə=tʰə*	*<pənʂən>*	*pʰjəpo*	*ŋuə-ræ*	*sʰo*
ANAPH	INTERJ	DEM=TOP	basically	rich	COP.3-SENS	more

vɕe-ko	*ma-ræ=læ*	*<xɛpuʂə>*	*'sʰo*	*tʰi*	*ɕʰa*
need-NMLZ:LOC	NEG.EXV-SENS=but	nevertheless	more	DEM.GEN	on

sʰo	*gæ-vtsʰe*	*lɔ*	*n-**a**-tjan'*	*ntʰsə-wo.*
more	ADJZ-wealthy	again	DIR-**OPT**-become.NPST.1	think.NPST.3-QUOT

He himself was a rich person, so he basically needed nothing more, but he nevertheless thought: 'On top of this, let me become even wealthier!' (RN: folktale)

(10.79) non-canonical imperative for the third person by means of the optative:

'ste=je	*ŋo~ŋa*	*n-**a**-ma'*	*d-ə-joŋ.*
everyone.GEN=GEN	be.sick~RED.NMLZ:ACT	DIR-**OPT**-NEG.EXV	PREF-NACT-say.1

We say (when praying): 'Let everyone not have sicknesses!' (RN: ethnographic description)

The optative is negated with *-di- ~ -dʑi-*, the dedicated irrealis negator (see §10.2.4) also used for the imperative in prohibitive formation, rather than the standard negation prefixes *mV-* (see §11.2.1): *da-lxua* 'let it appear' *da-di-lxua* 'Let it not appear!'

10.2.7. Other command strategies

An overt imperative construction is not necessary to convey a command in Geshiza. Depending on the context, an adverb (10.80) or a declarative (10.81) also carries the force of a command. When an adverb is used for commanding, the context supplies the omitted verb.

(10.80) *ɕʰiɕʰi=bɔ.*
slowly=MOD
(Do or Go) slowly! (OU)

(10.81) *ju* *zə-lxua.*
oil PROSP-appear.3
Oil is about to come out! (i.e. Get away from the generator!) (OU)

10.2.8. Imperatives and other grammatical categories

To conclude this chapter, we discuss the co-occurrence of the imperatives with other grammatical categories. Table 10.9 on the following page summarises the dependencies discovered. As the previous discussion illustrated, all imperative types require the non-past stem

of a verb. Perfective (see §8.3.1) and imperfective (see §8.3.2) aspects are only distinguished in the past tense expressed by the past stem not available in imperatives, aspectual distinctions between the two thus being absent in commands. Neither does the prospective aspect occur in imperatives. Only the continuative aspect has some presence in the general imperative. In sum, aspectual distinctions are almost completely eliminated in imperatives. Orientational distinctions encoded through verbal prefixes (see §8.2), however, are generally maintained across the imperative types. Finally, analysing the patterns of negation and compatibility with evidentiality indicate that imperatives are an irrealis mood in Geshiza. In other words, when this is possible, Geshiza imperatives select the irrealis negator-*di-* ~ -*dʑi-* (see §11.2.3) that characterises all irrealis moods in the language. Also, like in all other irrealis moods, evidentials never cooccur with imperatives.

Table 10.9. Imperatives and other grammatical categories in Geshiza

Imperative type	Person[76]	Tense	Aspect	Evidentiality	Orientation
General	2	non-past	limited	✗	✓
Apprehensive	2	non-past	✗	✗	✓
Prohibitive	2	non-past	✗	✗	✓
Archaic	2	non-past	✗	✗	✓?
Optative	1, 2, 3	non-past	✗	✗	✓?

10.3. Summary

This chapter focused on the non-declarative speech acts of questions and commands. Exclamatives that are sometimes also considered a minor separate clause type in the literature are discussed in the context of modal discourse enclitics (see §8.6.5). Geshiza is rich in interrogative strategies that formally manifest themselves as prefixes, clitics, and independent lexemes. Functionally, these strategies can be divided into polar questions, tag questions, alternative questions, content questions, auto-interrogation, and rhetorical questions. The language is equally rich in imperative constructions that include the general imperative, apprehensive, prohibitive and archaic imperative, optative supplementing the 'missing' persons of the general imperative. All Geshiza imperatives are formed through affixation. Evidence from negation and incompatibility with the evidential suffixes supports the conclusion that they are an irrealis category in the language.

[76] As discussed in §11.2.3, person here refers to the person commanded, not to the person indexed to the verb, since a mismatch between the two occasionally takes place in the apprehensive imperative.

CHAPTER ELEVEN
Negation

This section introduces the domain of negation in Geshiza. As the main strategies, negation is formally expressed by four negative prefixes and two negative verbs. The questionnaires Miestamo (2016) and Miestamo, Tamm, and Wagner-Nagy (2015) were used as the basis for this chapter, although the structure of the questionnaires is not followed completely. An updated version of negation in Geshiza following the questionnaire will appear separately (Honkasalo, forthcoming). Following a brief overview (§11.1) the chapter is divided between clausal negation (§11.2) and non-clausal negation (§11.3). This is followed by a brief note on other aspects of negation in Geshiza (§11.4) and a summary of the chapter (§11.5).

11.1. Overview

In propositional logic, negation is defined as an operator that reverses the truth value of a proposition (Miestamo 2005: 552). The negation system of Geshiza exhibits considerable complexity where negation is expressed through four negative prefixes, a negative copula, and a negative existential verb. Geshiza standard negation strategies are determined whether the predicate verb is aspectually marked or not. All four negative prefixes occur in the dedicated slot -3 of the verbal template (see §4.3.2) that contains no other paradigmatic morphology. Table 11.1 offers a brief description of negating strategies in Geshiza.

Table 11.1. Negating strategies by domain in Geshiza

Domain of negation	Form	Description
Verbal negation	*mi-* (NEG-)	non-aspectual negator (default)
	mə- (MOD.NEG-)	non-aspectual negator (modal)
	mɛ- (ASP.NEG-)	aspectual negator
	-di- ~ *-dʐi-* (-IRR.NEG-)	irrealis negator
Existential negation	*ma* (NEG.EXV)	negative inanimate existential verb
Copular negation	*mɲa* ~ *mja* (NEG.COP)	negative copula
Nominal negation	*mi-, mə-*	verbal negators present in nominalisations
Adjectival negation	*mi-, mə-*	verbal negators present adjectivisations

Negation is paradigmatically symmetric in the language, since all grammatical categories present in the affirmative also surface the negative, including evidentiality. Furthermore, prefixal negation is largely symmetric in the sense that the negative constructions differ from their affirmative counterparts only in the presence of a negator. All grammatical categories, including evidentiality, surface in negative contexts as well.

11.2. Clausal negation

Clausal negation refers to the strategies employed for negating an entire clause (Miestamo 2005: 41-42). In a relatively complex system, Geshiza has six major negators to express clausal negation. These can be subdivided into negative prefixes (*mi-, mə-, mɛ-, -di- ~ -dʑi-*) and two negative verbs (*ma* 'negative existential verb; *mɲa ~ mja* 'negative copula').

Geshiza clausal negation strategies can be subdivided into standard negation (§11.2.1); modal negation (§11.2.2); irrealis negation (§11.2.3); copular negation (§11.2.4); existential negation (§11.2.5); and inherently negative lexical items, all of which are verbs (§11.2.6).

11.2.1. Standard negation

Standard negation refers to the general and productive way(s) of negating verbal declarative main clauses (Payne 1985; Miestamo 2005). The definition excludes special strategies for negation, e.g. existential, copular, and non-declarative negation. Standard negation in Geshiza is symmetrically expressed by means of two prefixes: *mi-* (glossing: NEG) and *mɛ-* (glossing: ASP.NEG), the distribution of which is illustrated in Table 11.2. Both prefixes attach to their host by means of an agglutinative process. In the table, the horizontal arrow lines illustrate the linking of aspect and tense in Geshiza that also symmetrically applies to declarative clauses.

Table 11.2. Standard negation in Geshiza

Negative prefix	Aspect	Tense
mi-	Non-aspectual	Non-Past
mɛ-	Prospective ⟷	Non-Past
	Imperfective ⟷	Past
	Perfective ⟷	Past

The use of an appropriate negator is tied to the concept of aspect. The negative prefix *mi-* occurs in aspectually neutral clauses, namely clauses lacking overt aspectual marking that are always in the non-past tense (11.1, next page). The negative prefix *mɛ-* appears in all other instances that are aspectually marked, i.e., in clauses that carry an aspectual meaning irrespective of their tense, since the prospective aspect co-occurs with the non-past tense while the perfective and imperfective aspects co-occur with the past tense (11.2-11.4). Linking of

negation and aspect in Geshiza differs noticeably from similar documented phenomena in Gyalrongic languages. Prins (2016) and Nagano (2003) interpret the difference of two negative prefixes along with an aspectual contrast (imperfective vs. perfective) in Jiaomuzu and Zhuokeji Gyalrong, respectively.

(11.1) No aspect, non-past tense: *mi-L:*

'braŋgu	***ɕin=za'***	*jə*	*'braŋgu*	***mi-ɕoŋ.'***
TOPN	**go.NPST.2=Q**	say.3	TOPN	**NEG-go.NPST.1**

'Are you going to Danba County Town?' he asked. 'I am not going to Danba County Town,' (I replied). (MEE)

(11.2) Prospective aspect, non-past tense: *mɛ-:*

$t^hævæ=t^hə$	***zə-st^{h}oŋ=bɔ.***
now=TOP	**PROSP-finish.NPST.1PL**=MOD

We are about to get finished now. (ACC; see below)

$t^hævæ=t^hə$	***zə-mɛ-st^{h}oŋ=bɔ.***
now=TOP	**PROSP-ASP.NEG-finish.NPST.1PL**=MOD

We are not about to get finished now. (RN: chronicle)

(11.3) Imperfective aspect, past tense: *mɛ-:*

$t^hævæ$	*æʑo*	*bɔ$t^hə$*	***gæ-v-dæ.***
now	mat.uncle	like.that	**IPFV-INV-do.3**

Now, 'grandfather' (i.e., the father of my husband) does like that. (MEE: interview)

$t^hævæ$	*æʑo*	*bɔ$t^hə$*	***gæ-mɛ-v-dæ.***
now	mat.uncle	like.that	**IPFV-ASP.NEG-INV-do.3**

Now, 'grandfather' (i.e., the father of my husband) doesn't do like that. (ACC: see above)

(11.4) Perfective aspect, past tense*: mɛ-:*[77]

tɕ^{h}u	*æqɛ=ræ*	*wnæ-sq^{h}a,*	*wnæ-sq^{h}a-wtɕ^{h}əu*	*ŋuə-ræ.*
CONJ	all=LNK	two-ten	two-ten-six	COP.3-SENS

<ləupər>	*lməu=$t^hə$*	*wnæ-sq^{h}a-wʑæ=zɔ*	***dæ-v-ɕa.***
shopkeeper	3.ERG=TOP	two-ten-four=only	**PFV-INV-take.PST.3**

[77] The arising asymmetry in perfective negation is discussed further down in the section.

sʰo *kʰrə* *wne* ***mɛ-v-ɕa.***
more yuan two **ASP.NEG-INV-take.PST.3**
(The bill) was 26 yuan. The shopkeeper took only 24 yuan. He did not take the two yuan. (RN: chronicle)

Verbal prefixes and the distribution of mi-*and* mɛ-

The distribution of the two negative prefixes cannot be explained as a morphological formal phenomenon being conditioned by the presence or lack of a verbal prefix regardless of its function. In (11.5) and (11.6), the aspectually neutral negative prefix *mi-* is used even though both clauses contain multifunctional verbal prefixes (see §8.1, §8.2). These instances of the verbal prefixes, however, lack an aspectual function. The prefixes *næ-* and *rə-* are not aspectual, but orientational in the examples, encoding downward and upward direction, respectively. Furthermore, as discussed in §8.5.2, aspectual distinctions are neutralised in the non-actual realis used for habitual, even though such forms co-occur with verbal prefixes that in other contexts commonly code aspectual distinctions. Consequently, the habitual is always negated with *mi-*, the non-aspectual negator (12.7):

(11.5) *tɕʰu* *<fatiæn>* *və* *stʰoŋ=ke=ræ* *<tiæn>=je,*
CONJ charging LV:do.INF finish.NPST.1PL=SEQ=LNK elecrticity=GEN

<ʈʂʰapæn> *noŋ=je* *<tiænləu-ʈʂʰatʰu>* *næ-**mi**-ve-ræ.*
power.strip in=GEN computer-plug DIR-**NEG**-go.SUPPL.3-SENS
After finishing to put the generator on, the computer plug would not fit into the power strip. (RN: chronicle)

(11.6) *<ʈʂʰetsə>* *rə-**mi**-tʰær-ræ* *tɕʰu* *ŋæ=ɲi* *nɐva*
car DIR-**NEG**-able.to,go.NPST-SENS CONJ 1=PL.GEN relative

æ-ɣi=je *<petɕinpe-ʈʂʰetsə>* *næ-v-tæ-sʰi.*
one-CLF.person=GEN car.brand.name-car PFV.DIR-INV-reach.PST.3.IFR
When the car was unable to go up any further, one of our relatives arrived in a 'Beijing-bei' car. (RN: chronicle)

(11.7) *dəu~dəu* *tʰu* *æ-li* *d-ə-v-dæ.* *æ-li*
RED.ADJZ~small DEM.ERG one.CLF.time PREF-NACT-INV-do.3 one.CLF.time

*d-ə-**mi**-v-dæ.*
PREF-NACT-**NEG**-INV-do.3
The younger (brother) did one task and did not do one task (habitually). (RN: folktale)

Standard negation with auxiliary verbs

In clauses containing a main verb and an auxiliary verb, the negative prefixes attach to the auxiliary, if the auxiliary is independent, and on the main verb, if the auxiliary is bound (see §4.3.8 for both groups). For instance, the experiential perfect aspect (see §8.3.6) formed with the main verb in past tense and perfect prefix followed by the self-standing auxiliary *zda* is negated with the aspectually neutral negator *mi-* attaching to the auxiliary (11.8). In the resulting negative clause, the main verb lacks any negative marking. This does not contradict the distributionary model of the negative prefixes, since the experiential perfect is a complex aspect where the main verb appears in the perfective together with the auxiliary aspectually unmarked *zda*. In contrast, with a bound auxiliary, such as the causative auxiliary *-pʰə*, negative morphology attaches to the main verb (11.9).

(11.8) *mbəzə-tsʰætɕʰə* *tʰo* *rə-ɕʰoŋ* ***zda*=*mde.***
gun.powder-hot.spring DEM.LOC PFV.DIR-go.PST.1 **AUX.EXP.PERF**=MOD
I have been to 'Gun Powder Hot Spring'. (in Dangling, named after the smell)

dən *mtsʰo-wa* *dæ-ɕʰoŋ* ***mi-zda*=*bɔ.***
TOPN lake-APUD PFV-go.PST.1 **NEG- AUX.EXP.PERF**=MOD
I have never gone to the lakeside of Dangling. (RC)

(11.9) *vʑa*=*tʰə*~*tʰə* *jindɔ* *spa-**pʰə**-ræ*=*mɔ.*
warm.season=TOP~RED strongly thirsty.NPST.3-**AUX.CAUS**.NPST.3-SENS=MOD
One feels very thirsty in the warm season.

rtso=*nɔ* ***mi**-spa-**pʰə**-ræ*=*je.*
cold-season=TOP.C NEG-thirsty.NPST.3-**AUX.CAUS**.NPST.3-SENS=MOD
One doesn't feel thirty in the cold season! (MEE)

Symmetry in standard negation

Standard negation in Geshiza is symmetric, save that of the perfective aspect. While the negator *mɛ-* attaches between the imperfective and prospective markers and the verb root (11.10, 11.11, following page), in perfective marked with *dæ-*, no prefix can appear together with the negator (11.12-11.14). The standard perfective marking on the verb is consequently deleted in negated clauses. When an orientational prefix simultaneously functions as a perfective marker, however, no deletion occurs (11.15, 11.16). Since the negated prospective and imperfective aspects always requires the presence of the aspectual prefixes *zə-* and *gæ-*, respectively, it follows that *mɛ-* in isolation with no accompanying verbal prefixes always expresses perfective past negation of a perfective with *dæ-* in the corresponding affirmative. Consequently, no aspectual neutralisation occurs in this context.

(11.10) Affirmative imperfective:

bəsni	*mæ*	***gæ-ʑe-s^{h}i.***
today	rain	**IPFV-come.3-IFR**

It was raining today. (OU)

(11.11) Negated imperfective, aspectual marking present:

bəsni	*mæ*	***gæ-mɛ-ʑe-s^{h}i.***
today	rain	**IPFV-ASP.NEG-come.3-IFR**

It was not raining today. (ACC; see 11.10)

(11.12) Affirmative perfective with *dæ-:*

vzəza	*æ-lə*	***dæ-nço-s^{h}ə-mə-ræ.***
monkey	one-CLF.INDEF	**PFV-own.PST.3-IFR-EP-SENS**

He had a monkey. (RN: folktale)

(11.13) Negated perfective, aspectual marking not present:

vzəza	*æ-lə*	***mɛ-nço-s^{h}ə-mə-ræ.***
monkey	one-CLF.INDEF	**ASP.NEG-own.PST.3-IFR-EP-SENS**

He did not have a monkey. (ACC; see 11.12)

(11.14) Non-attested ungrammatical negated perfective with aspectual marking present:

**vzəza*	*æ-lə*	***dæ-mɛ-nço-s^{h}ə-mə-ræ.***
monkey	one-CLF.INDEF	**PFV-ASP.NEG-own.PST.3-IFR-EP-SENS**

Intended meaning: He did not have a monkey. (REJ)

(11.15) Affirmative perfective with *rə-:*

xaræ	*grə=nɔ*	***rə-v-læ-s^{h}i***	*ŋuə-mə-ræ.*
CONJ	boat=LOC	**PFV.DIR-INV-let.3 -NMLZ**	COP.3-EP-SENS

But (the boatman) took them in. (ACC; see 11.16)

(11.16) Negated perfective, *rə-* retained:

xaræ	*grə=nɔ*	***rə-mɛ-v-læ-s^{h}i***	*ŋuə-mə-ræ.*
CONJ	boat=LOC	**PFV.DIR-ASP.NEG-INV-let.3 -NMLZ**	COP.3-EP-SENS

But (the boatman) did not take them in. (RN: mythical local history)

11.2.2. Modal negation

At the place of the expected *mi-* in non-aspectual negation, the negator *mə-* (MOD.NEG) appears with a subset of Geshiza verbs. When *mə-* surfaces with those verbs, the use of *mi-* is ungrammatical (11.17, 11.18). Also, the appearance of *mə-* cannot be interpreted as an automatic phonological process, and consequently needs a grammatical explanation.

(11.17) *<tʰetsʰæn>* ***mə****-səu-ræ,* *braŋgu=tʰə* *sʰo.*
special.product **MOD.NEG-**know.NPST.1SG-SENS TOPN=TOP DM
I don't know what the special products of Danba County Town are. (RC)

(11.18) **<tʰetsʰæn>* ***mi****-səu-ræ,* *braŋgu=tʰə* *sʰo.*
special.product **NEG**.know.NPST.1SG-SENS TOPN=TOP DM
Int. meaning: I don't know what the special products of Danba County Town are. (REJ)

The source materials include 18 instances of such behaviour, but further investigations may show the phenomenon to be slightly more wide-spread in Geshiza. The identified cases are tabulated as shown in Table 11.3:

Table 11.3. List of common verbs requiring modal negation

Category	Verb	Negation	Gloss
modal verbs	n/a	*mə-grə* (V1b)	to not be able
	mɲə (V2b)	*mə-mɲə*	to be able
	ŋi (V1a)	*mə-ŋi*	to be all right
	n/a	*mə-ske* (V1b)	should not
	sko (V1b)	*mə-sko*	to manage, be able
	snə (V3b)	*mə-snə*	to dare
	tɕʰa (V2b)	*mə-tɕʰa*	to be able
	vɕe (V1b)	*mə-ɕe*	to need, have to
'opportunistic'	*ntʰje* (V3b)	*mə-ntʰje*	to hear
perception verbs	*vdo* (V4)	*mə-vdo*	to see
other verbs	*dzo* (V2b)	*mə-dzo*	to fit into
with low level of	*dʑo* (V2b)	*mə-dʑo*	to bear, able to put up with
controllability	n/a	*mə-kʰe* (V2b)	to envy
	mnæ (V2b)	*mə-mnæ*	to (be able) to reach
	v-ri (V4)	*mə-v-ri*	to find
	v-se (V4)	*mə-v-se*	to know
	stʰæ (V3b)	*mə-stʰæ*	to finish
	tɕɔ (V1a)	*mə-tɕɔ*	to be, feel comfortable

The negative prefix *mə-* is clearly related to the standard negation prefixes. As in the case of the negative prefix *mi-*, the use of *mə-* is restricted to aspectually non-marked clauses in the non-past tense. Consequently, when verbs negated by *mə-* in non-past occur in past contexts, the aspectual negative prefix *mɛ-* must be used. To illustrate, while the verb *ntʰje* (V3b) 'to hear' is negated as *mə-ntʰje* in the aspectually non-marked non-past tense, the aspectual negator *mɛ-* surfaces in aspectually marked past contexts: *mɛ-ntje* (11.19). The same applies to *sko* (V1b) 'to manage, be able' negated as *mə-sko* in the aspectually non-marked non-past tense and as *mɛ-skʰo* in aspectually marked past contexts (12.20).

(11.19) *xə=tʰə=ke* *ætɕʰæ=wo* ***mɛ-ntje-sʰə-mə-ræ-jə.***
DEM=TOP=DAT house.priest=ERG **ASP.NEG-hear.PST.3-IFR-EP-SENS-REP**
Then, it is said that the house priest did not hear (what they talked). (RN: folktale)

(11.20) *wa~wa* *<ju> -goŋ* ***gæ-mɛ-skʰo=bɔ.*** *kʰrə* *<ji>*
INTERJ~RED oil-price **IPFV-ASP.NEG-manage.PST**=MOD yuan one

<konʂən>=je *kʰrə* *ʂɲe* *mətsʰæ* *və-ræ* *tɕʰu.*
litre=GEN yuan seven more LV:do.3-SENS CONJ
I cannot handle the gasoline prices! One litre costs more than seven yuan. (RC)

Analysing the distribution of *mə-*, it appears with modal verbs, verbs of 'opportunistic' perception and other verbs of low level of controllability, each group inspected in turn below.

Independent modal verbs

Geshiza has eight freestanding modal auxiliary verbs (see §8.6.4). sharing semantic and syntactic properties. All of the modal verbs must be negated with *mə-* in non-aspectual negation (11.21, 11.22). As their shared feature, the modal verbs encode a low level of control. Interestingly, Jacques 2011b reports *mji¹* 'negator of modal verbs' formally resembling *mji¹* 'basic negation' in Tangut, a related extinct language. The negator *mə-* also exists in Stau with largely the same verbs as in Geshiza, but core Gyalrong languages lack the phenomenon. Presence of modal non-controllable negation can thus be seen yet another feature shared by Tangut and East Gyalrong languages, illustrating the close affinity of the former in the latter.

(11.21) *mɲə* V2b 'to be able':
ə *bæ* *ŋæ=ɲə* *ʑjə* *mi-kʰroŋ=gæ.* *ə* *bæ*
HES Tibetan 1=PL fish NEG-catch.NPST.1PL=MOD HES Tibetan

ŋæ=ɲə *ʑ̥jə* *kʰrə* ***mə-mŋoŋ.***
1=PL fish catch.INF **MOD.NEG-AUX.can.1**
We Tibetans do not fish. We do not know how to fish. (see §2.6.4 concerning a taboo on fishing). (MEE: interview)

(11.22) *mə-ske* V1b 'should not':
sponqæal *sʰæ* ***mə-ske=mɔ=tʰə*** *g-ə-jə-me…*
frog kill.INF **MOD.NEG-AUX.should**=MOD=TOP PREF-NACT.-say.3-NMLZ:P
(It is) said that one should not kill frogs. (RC; see §2.7.1 *ʑ̥ɕʰə spirits* concerning a taboo on killing frogs and snakes that are manifestations of spiritual beings)

'Opportunistic' perception verbs
'Opportunistic' perception verbs refer to perception verbs opportunistic perception, e.g. 'to see' and 'to hear', contrasting with 'explorative' perception verbs, such as 'to watch' and 'to listen' (Wächli 2016). Binary term pairs, such as 'experience' and 'activity' (Viberg 2001) or 'cognitive' and 'active' (Rogers 1971) are also used for the verb pairs; see Wächli (2016: 58) for terminological criticism. Geshiza has two opportunistic perception verbs, *ntʰje* (V3b) 'to hear' and *vdo* (V4) 'to see', both of which must be negated with *mə-* in non-aspectual negation (11.23, 11.24). The verbs contrast with *sŋi* (V3b)'to listen' and *stɕʰəkʰi/mtɕʰəkʰi* (V4) 'to watch' that take the negator *mi-*.

(11.23) *ntʰje* V3b 'to hear':
snote *æ-lə* *dæ-vɕʰæ.* *dæ-vɕʰæ=ræ* *ŋa* *gəndɔ*
story one-CLF.INDEF PFV-tell.PST.3 PFV-tell.PST.3=LNK 1SG strongly

mə-ntʰjəu-ræ.
MOD.NEG-hear.NPST.1SG-SENS
He told a story. He told (a story) and I did not understand (lit. hear) it well. (RN: chronicle; see §14.4.2. concerning how many young Geshiza have some difficulties understanding folktales now)

(11.24) *vdo* V4 'to see':
ŋæ=ŋu *æleæli=læ* *vdoŋ-ræ=gæ.* *æleæli*
1=PL.ERG sometimes=FOC see.1PL-SENS=MOD sometimes

mə-vdoŋ-ræ=gæ.
MOD.NEG-see.1PL-SENS=MOD
Sometimes we see them. Sometimes we don't see them. (RN: ethnographic description)

Other verbs of low level of controllability

Seven other verbs requiring the negator *mə-* were identified. All these verbs entail low level of control by the subject, as illustrated in examples (11.25-11.27). At least some of the behaviour remaining verbs can be explained. To illustrate, even though the verb *v-ri* (V4) 'to find' lacks modal use in Geshiza, in Stau, *v-ri* is used both for 'to find' and 'can, be able'. Also, transitive verb *st^{h}æ* (V3b) 'to finish' appears at first sight to defy the definition, it conveys little control, thus being also incompatible with the general imperative (see §10.2.2). Consequently, when the subject has greater control over the finishing process, the verb must be causativised: *st^{h}æ-p^{h}ə* 'to finish, make come to an end', in which case the general imperative can be formed.

(11.25) tɕ^{h}æ (V1b) 'to be free, to have the time to do something':

k^{h}uæ	*ɕə*	***mə-tɕ^{h}æ-ræ***	*joŋ=mde.*
cut.INF	go.INF	**MOD.NEG-be.free.NPST-SENS**	say=MOD

I have no time to go to cut (the grass used for pig food), I say! (RC)

(11.26) *v-se* (V4) 'to know':

stɕewa	*ætɕ^{h}ə=ke*	*dæ-loŋ*	***mə-san-ræ=gæ.***
reincarnation	what=DAT	PFV-LV:release.1PL	**MOD.NEG-know.NPST.1PL-SENS**=MOD

We do not know into what we reincarnated into (in our previous lives). (see §2.7.1. *Tibetan Buddhism* concerning the belief in reincarnation) (MEE: interview)

(11.27) *dʑo* (V2b) 'to bear, be able to put up with':

ŋa	*mŋa-me*	*dæ-dəu*	*tɕ^{h}u*	*mdʑurtenme=nɔ*
1SG	NEG.EXV-NMLZ:P	PFV-do.1SG	CONJ	common.people=TOP.C

stɕ^{h}ək^{h}i-ʑæ	***mə-dʑoŋ-ræ.***
watch-NMLZ:P	**MOD.NEG-bear.1-SENS**

I did something wrong, so I cannot bear facing people. (MEE)

Asymmetry in modal non-controllable negation

In §11.2.1, it was stated that Geshiza standard negation is largely symmetric, and the same applies to modal non-controllable negation. The verb this *vɕe* (V1b) 'to want, to need' constitutes the only attested irregular instance with a reduced consonant cluster *ɕe* when negated (11.28, following page). When other CV prefixes are present, the reduction fails to occur. Reasons behind this irregularity remain unknown (see, however, discussion of the verb in the context of inherently negative lexical items in §11.2.6).

(11.28) *m:* *tɕʰu* *tsʰə-pʰru=tʰə* *tʰævæ=tʰə* *sʰo* *kʰoŋ*
INTERJ CONJ dirt-white=TOP now=TOP more cut.NPST.1PL

mə-ɕe-ræ.
MOD.NEG-AUX.need.NPST-SENS
There is no need to harvest the white-dirt-paint now. (see §2.4.1. *Tibetan New Year and smon lam Prayer Festival* concerning the custom of repainting the houses before the Tibetan New Year) (MEE: procedure)

Summary of negation and controllability in Geshiza
Since the modals also express uncontrollable action, the negative prefix *mə-* can be labelled as modal negator of uncontrollable action. Consequently, the notion of controllability known to play an important role in Trans-Himalayan languages (see e.g. Sandman 2016 on Wutun) has become embedded as a part of the negative system of Geshiza.

The distribution of the negator *mə-* is fixed and limited to a small set of verbs that may be a vestige of a historical pattern mostly levelled through analogy. The negator *mə-* cannot be used productively to indicate lack of control: *we mi-tʰo* (house NEG-build.NPST.1SG) 'I don't build a house (subject in control)' versus the grammatically incorrect **we mə-tʰo* (house MOD.NEG-build.NPST.1SG) with the intended meaning 'I don't build a house (subject lacking control).' In such circumstances, a negated modal verb must be used to emphasise the lack of capacity or ability: *we tʰo mə-tɕʰoŋ* (house build.INF NEG-AUX.can.NPST.1) 'I cannot build a house (e.g. due to lacking funds)'.

11.2.3. Negation of irreal situations
Irrealis in Geshiza is negated with the negator *-di- ~ -dʑi-* (glossing: IRR.NEG) that occurs as a paradigmatic alternative to other negative prefixes. It is often the only overt marking concerning the irrealis status of a clause. The prefix reflects the PTH prohibitive marker reconstructed as *ta-⫘ *da (Matisoff 2003: 586). The affricate allomorph *-dʑi-* heard in some individuals' speech constitutes a later innovation that has developed from *-di-*.

First, as illustrated in (11.29, 11.30), irrealis negation appears in prohibitives (negative imperatives), discussed in detail in §10.2.4:

(11.29) *gæ-ran.*
IMP-shoot.2PL
Shoot! (ACC; see 12.30)

(11.30) *gæ-**dʑi**-ran.*
IMP-**IRR.NEG**-shoot.2PL
Do not shoot! (MEE: folktale)

Second, the irrealis optative *-a-* (see §8.5.5) must be negated with the irreal negator. In practice, negated optatives occur with low frequency in actual everyday conversation (11.31, 11.32):

(11.31) *w-a-ʑæ.*
DIR-OPT-come.3
Let him/her come! (RC)

(11.32) *wa-**di**-ʑæ.*
DIR-OPT- **IRR.NEG** come.3
Let him/her not come! (ACC; see 11.31)

Finally, the irrealis negation is used in counterfactual irrealis scenarios where it is the only visible morphological marker of irrealis status. For instance, in (11.33), the speaker wishes that the cold season would not start, since weddings typically happen during the cold time when there is little agricultural work (see also §2.4.2). Because of expected gifts, attending many weddings causes financial burden. The speaker, however, has no influence on the flow of time and winter is starting anyway, making the use of the irrealis negator compulsory:

(11.33) *<maʂan>* *tɕʰu* *rtso* *bɔ=ɲə=tʰə* ***gæ-di-ndzo=me***
soon CONJ cold.season like=PL=TOP **IPFV-IRR.NEG-start**=too

tɕʰi-ræ. *<tɕʰintʰie>* *dʑo~dʑo* *v-læ-ræ,*
be.all.right-SENS invitation.letter RED.ADJZ~many INV-LV:release.3-SENS

æ-ŋuə-ræ.
Q-COP.3-SENS
It would be fine even if the cold season did not start soon! People send a lot of invitation letters, right? (RC)

11.2.4. Copular negation

The copula *ŋuə* (V2b) has a negative counterpart *mɲa ~ mja* (V2b) that must be used to negate equative predicates (11.34 on the following page; see §.7.3.4 for a dedicated discussion on copular clauses):

(11.34) *dzi* *ŋgə-ʑæ* *rtsæwa* ***ŋuə-ræ.*** *zə-rtsæwa* ***ŋuə-ræ.***
food eat-NMLZ:P essential **COP.3-SENS** SUPL-essential **COP.3-SENS**

stema=ɲə=dʑe *bɔ* *rtsæwa* ***mɲa-ræ.***
rest=PL=TOP so essential **NEG.COP.3-SENS**
Eating food is necessary, most necessary (in life). Other things are not as necessary as that. (MEE)

Contrastive negation and the negative copula

The negative copula *mɲa ~ mja* plays an important contrastive discourse function where a speaker signals objection, typically to a whole previous utterance: VP *mɲa*: 'it is not VP (but something else)', illustrated in (11.35-11.37). Contrastive negation is commonly discussed under the formula 'not X but Y' common in English (see e.g. McCawley 1991), but no extensive typological surveys exist. In Geshiza, the construction the topicaliser *=t^{h}ə* (see §13.3) commonly adjoins the verb phrase (VP *=t^{h}ə mɲa*), since it carries a contrastive function. Its presence is nevertheless not compulsory (11.37).

(11.35) *bəvi* *skɛ* *gæ-mɛ-tɕoŋ-s^{h}ə=mde.*
this.year more IPFV-ASP.NEG-AUX.can.PST.1-IFR=MOD
This year I haven't been earning that much! (speaker A)

bəvi *gæ-mɛ-tɕan=t^{h}ə* ***mɲa.*** *vɕe-ko*
this.year IPFV-ASP.NEG-AUX.can.PST.2=TOP **NEG.COP.3** NEED-NMLZ:LOC

gæ-wɾe.
IPFV-be.many.3
It is not that you have not been able to earn enough. The costs are expensive. (speaker B) (RC)

(11.36) *<ɕəufe>* *və* *mɛ-tɕan=zə* *ætɕ^{h}ə* *vɕe.*
consumption LV:do.INF ASP.NEG-AUX.can.PST.2=COND what want.NPST
If you don't have the money, what do you want (to say with those things you have been talking about)? (speaker A)

jæ-vɕəu=t^{h}ə ***mɲa=bɔ.***
CONT-speak.NPST.1SG=TOP **NEG.COP.3**=MOD
It is not that I am talking nonsense! (RC; speaker B)

(11.37) *<pʰiəutsə>* *vɕe* ***mɲa-ræ.*** *<tsʰæntɕa> -pa*
money need.NPST **NEG.COP.3-SENS** participate-SUFF

dæ-ŋuə *tɕʰa=tʰə* *braŋgu* *tɕɔ* *gæ-joŋ-mə.*
PFV-COP.3 COND=TOP TOPN be.pleasant.NPST IPFV-say.3-EP
It is not that (a lot of) money is needed. If one is a government official, living in Danba County Town is pleasant, I am saying! (RC)

Historical remarks

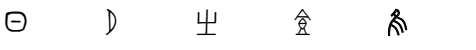
The co-occurrence and historical coalescence of the negative copula *mɲa ~ mja* together with *bɔ* 'like' has given rise to *bɔmɲa ~ bɔmja* 'not like' in the comparative construction in the role of MARK of comparison, a comparative case enclitic (11.38; see §5.3.10 for a dedicated treatment of the comparative case and §7.7.3 on comparative clauses):

(11.38) *məsni* *mægə=**bɔmɲa*** *skɛ* *wtsæ-ræ.*
today yesterday=**CMPR** more be.hot.NPST-SENS
COMPAREE STANDARD=MARK INDEX PARAMETER
Today is hotter than yesterday. (MEE)

Diachronically, the negative copula might originate from a coalescence of an aspectually non-marked standard negation marker *mV- and the copula (*mV-ŋuə > *mɲa ~ mja*) at an earlier stage of Geshiza. The sequence **mi-ŋuə* never appears in contemporary Geshiza and is deemed ungrammatical. Nevertheless, the hypothesis cannot sufficiently explain the differences in vocalisation between the contemporary negative copula and the proposed proto-form. The proposed development path resembles 'Negative Existential Cycle' proposed by Croft (1991) and elaborated on by Veselinova (2013b; 2016), although the model addresses existentials in the narrow sense, which consequently excludes copulas.

Similar path of development has taken place in Old Chinese. As Pulleyblank (1995: 106) explains, the standard theory considers the negator *pəj (非) of Classical Chinese to originate from the contraction of the negator *pə (不) and a pre-classical copula *ɢʷij (Classical Chinese written forms 維, 惟 and 唯; see also Jacques 2000). As illustrated in (12.39 and 12.40, following page), at the stage of Shang Chinese, the oldest attested form of the Chinese language written with the oracle bone script, *pəj (非) already coexisted with the analytical *pə ɢʷij (不惟) that is also present in oracle bone inscriptions, yet disappeared at latter stages of the language. The oracle bone inscriptions (11.39, 11.40) on the following page illustrate this. It is worth noting that different scholars translate the quoted inscription in somewhat different manners (see Chen et al. 2017:82 for an overview of the three major interpretations). This, however, has no effect on our linguistic discussion on the copular forms.

(11.39) affirmative copula

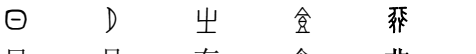


日 月 有 食 **惟** 若[78]

Sun Moon have eat COP auspicious

If the Sun or Moon are eaten (i.e. there is an eclipse), it will be auspicious. (H33694)[79]

(11.40) coalesced negative copula



日 月 有 食 **非** 若

Sun Moon have eat NEG.COP auspicious

If the Sun or Moon are eaten (i.e. there is an eclipse), it will not be auspicious. (H33694)

Typological remark

The Geshiza pattern differs from contrastive negation as defined in studies based mainly on English. First, while contrastive negation has been mostly discussed in terms of contrasting noun phrases (e.g. not a little dog, but a big cat), in Geshiza, the structure introduced here pertains to verb phrases (see Yeh 1995 on *búshì* 不是 of Mandarin Chinese having a similar function. Second, while an intended contrast is explicit in some utterances, sometimes a rectified utterance is left unsaid, to be recovered only through inference.

11.2.5. Existential negation

Geshiza follows a cross-linguistical tendency in which a special negation strategy is applied to existential predication (Veselinova 2013b). As illustrated in (11.41, 11.4), the negative verb existential *ma* (V1b) forms the negative correspondent to the inanimate existential verb *də* (V1b; see §7.6 for treatment of the existential verbs). Analytical standard negation for the inanimate existential is deemed ungrammatical: **mi-də.* Both affirmative and negative existential verbs lack any argument indexation. Their verbhood, however, can be confirmed from prefixation by verbal prefixes, capability of hosting evidential suffixes, and their syntactic position in a clause.

(11.41) *t^{h}ævæ* *va-dzi* ***ma.***

now pig-food **NEG.EXV**

Now there is no pigfood. (RC)

[78] For the convenience of the reader, modern corresponding Chinese characters are used for transcribing the oracle bone script in lieu of structurally more accurate, yet occasionally obscure ahistorical coinages that are frequently seen in specialised oracle bone script studies, e.g. 斐 for 非, a historical allograph for 非 that has completely disappeared from the writing system.

[79] Reference to the *jiǎgǔwén héjí* (甲骨文合集) numbers of Shang Dynasty oracle bone inscriptions.

(11.42) *tʰævæ* *va-dzi* ***də.***
now pig-food **EXV**
Now there is pigfood. (ACC; see 11.41)

The negative existential verb *ma* negates existential clauses that are typically inanimate (11.43). In contrast, animate existential clauses with *dʑi* (V2b) or any other animate existential verb must be negated analytically with a negative prefix (11.44):

(11.43) Inanimate existential clause with *ma:*
ɑ̂na *<fitɕi> =læ* ***ma,*** *æ-ŋuə-ræ.* *<ʈʂʰetsə> =læ* *sʰo*
past airplane=FOC **NEG.EXV** Q-COP.3-SENS car=FOC more

<kʰonen> ***ma.***
maybe **NEG.EXV**
In the past, there were no airplanes, right? There were probably no cars either. (RN: family history)

(11.44) Animate existential clause with *mi-dʑi:*
lmæ =dʑe ***mi-dʑi-ræ.*** *məsni* *braŋgu* *dæ-ɕʰə-sʰi* *da-ŋuə-sʰi.*
3=TOP **NEG-EXV.3-SENS** today TOPN PFV-go.PST.3-NMLZ PFV-COP.3-IFR

lmæ =ntsʰe *bəʑə* ***dʑi-ræ.*** *bəʑə =je* *rjəu* ***dʑi-ræ.***
3=ASS.GEN son **EXV.3-SENS** son=GEN wife **EXV.3-SENS**
He is not (at home). He had gone to Danba County Town today. His son is (at home). His son's wife is (at home). (RN: chronicle)

The negative existential verb *ma* is also used for the negation of animate existential clauses in lieu of the analytic *mi-dʑi.* As seen in (11.44) above, *mi-dʑi* occasionally contains a nuance of temporary absence similar to the Chinese *bú zài* 不再 'not to be present'. It follows that only *mi-dʑi* can be used for temporary absence. On the other hand, both *mi-dʑi* and *ma* can be used for permanent absence of an animate subject. The source materials include examples where the selection between the two carries no great semantic distinction, as in (11.45, 11.46):

(11.45) *rtso =tʰə* *wəza =tʰə* ***mi-dzi-ræ.*** *tɕɔ-ræ.*
cold.season=TOP fly=TOP **NEG-EXV.3-SENS** be.pleasant.NPST-SENS
In the cold season, there are no flies. It is pleasant. (speaker A)

(11.46) *ŋuə-ræ.* *rtso=t^{h}ə* *wəza* ***ma-ræ.***
COP.3-SENS cold.season=TOP fly **NEG-EXV-SENS**
Indeed. In the cold season, there are no flies. (speaker B) (RC; reply to 11.45)

Finally, the negative existential verb *ma* is also used to negate antonymic stative verb pairs that form coordinate compounds (see §6.3.3), indicating that there is no distinction between the treatment of the two opposites, in the sense 'regardless of/no matter V_1 and V_2' (11.47):

(11.47) *o* *'stæ* *s^{h}o* *ætɕ^{h}əroro* ***ɪ-tɕ^{h}æ-vdəu*** ***ma***
INTERJ all DM everything **AB-big-small** **NEG.EXV**

næ-mp^{h}ræn=mɔ' *dæ-jə.*
IMP-have.solidarity.NPST.2PL=MOD PFV-say.3
'Everyone, old and young (lit. big and small), have solidarity (with each other!' (the monk) said. (RN: procedure)

11.2.6. Inherently negative lexical items

Distinct from a grammatical operation, negation also exists as an inherent lexical property in the world's languages. For instance, English has negative quantifiers (e.g. no-one) and inherently negative verbs (e.g. to lack). Negative lexicalisations are very rare in Geshiza. For instance, the language lacks inherently negative indefinite pronouns. In addition to the negative copula *mŋa ~ mja* (see §11.2.4) and the dedicated negative existential verb *ma* (see §11.2.5, §7.6.2), Geshiza has few inherently negative verbs, namely verbs with inherently negative semantic content without overt marking for negation, e.g. *mk^{h}uə* (V2b) 'to lack, not have' *ŋær* (V1b) to not rain, the two of which can be semantically compared with *ntɕ^{h}o* (V3b) 'to have' *ʑe* (V1b) 'to rain, lit. to come' (12.48, 11.49). Both verbs in such polar pairs may be negated: *mi-mk^{h}uə* 'not to lack, have', *mi-tɕ^{h}o* 'to not have'.

(11.48) *mæ* *gæ-ʑe-s^{h}i.*
rain IPFV-come.3-IFR
It is raining. (UA)

(11.49) *mæ* *gæ-ŋær-s^{h}i.*
rain IPFV-not.to.rain-IFR
It has not rained (for some time). (MEE)

Lexicon of Geshiza also includes two modal verbs and one non-modal verb that require negation in all contexts: *mə-grə* (V1b) 'to be unable', *mə-ske* (V1b) 'should not', *mə-k^{h}e* (V2b) 'to envy'; cf. **ske* with the intended meaning 'should'. The negator in the obligatorily negated verbs nevertheless remains segmentable. For instance, in the perfective aspect (see §8.3.1), such modal verbs require the aspectual negator *mɛ-* (see §11.2.1): *mɛ-k^{h}e* 'did not envy'.

As discussed in, §11.2.2 concerning symmetry in negation, the negation of the modal *vɕe* (V1b) 'to want, need', takes an unpredictably irregular form *mə-ɕe*, **mə-vɕe* being ungrammatical. While the deviation from the expected case remains small, the form must be learnt by heart as an exceptional case in language acquisition. Fusion of negators is widely attested in the world's languages. The case of *mə-ɕe* mirrors neatly the behaviour of Latin *nolō* 'to wish not, not want' originating from the negation of *volō* 'wish, want' (Walde and Hoffmann 1938: 829).

In sum, identified inherently negative lexical items of Geshiza are shown in Table 11.4:

Table 11.4. Inherently negative lexical items in Geshiza

Verb	Gloss	Semantic polar pairs
mɲa ~ mja (V2b)	negative copula	*ŋuə* (V2b) 'affirmative copula'
mk^{h}uə (V2b)	to lack	*mi-mk^{h}uə* (V2b) 'to not lack'; *ntɕ^{h}o* (V3b) 'to have'
ŋær (V1b)	to not rain	*mi-ŋær* (V1b) 'to not not-rain'; *ʑe* (V1b) 'to rain'
mə-grə (V1b)	to be unable	n/a, **grə* ungrammatical
mə-k^{h}e (V2b)	to envy	n/a, **k^{h}e* ungrammatical
mə-ske (V1b)	should not	n/a, **ske* ungrammatical

Typological remark

In a typological study with a sample of 105 languages, Veselinova (2013a) shows that cross-linguistically, lexicalisation of negative senses is not random, but clusters around few semantic fields, altogether 62 senses being identified in the study, many of which occur in one language of the sample only. Especially the following stand out: negative existentials (71 languages), negative copulas (38), negative verbs of knowing (27 languages), negative verbs of ability (18 languages), and negative verbs of volition (17 languages). As this brief overview illustrates, of these, the Geshiza repertoire includes a negative copula, a negative existential verb, a negative verb of ability, and a negative verb of volition. In contrast, the source materials lack a negative verb of knowing, which is assumed not to exist in Geshiza.

11.3. Non-clausal negation

Non-clausal negation in Geshiza plays a less significant role than clausal negation. Adjectival negation (§11.3.1) and nominal negation (§11.3.2) are only possible as remaining morphology

in nominalised and adjectivised verbs. Geshiza speakers use negative copula *mɲa ~ mja* for short negative replies and contradicting utterances by interlocutors (§11.3.3).

11.3.1. Adjectival negation

Adjectives cannot be negated category-internally in Geshiza, since the language lacks dedicated morphology for negating non-verbal word classes. Also, as discussed in §4.4, adjectives are mostly a derivative word class branching into prefixed, reduplicated, and non-marked adjectives, the two former of which derive from verbs by means of prefixation and reduplication, respectively. Negative adjectives can only be formed from derived negated verbs that result in prefixed adjectives. The two other adjective subclasses cannot be negated, copular negation being the only option available. Adjectival negation in prefixed adjectives can be thus summarised as verb > negated verb > adjectivisation. To illustrate: *mdze* (V2a) 'to be beautiful' > *mi-mdze* (NEG-V2a) 'to not be beautiful' > *gæ-mi-mdze* (ADJ) 'non-beautiful' (11.50). The negated adjectives are also compatible with the superlative: e.g. *zə-mi-mdze* 'the least beautiful'.

(11.50) *tʰə=ke=ræ* *kʰɔ* ***gæ-mi-mdze*** *æ-ɣi=wə*
DEM=DAT=LNK INTERJ **ADJZ-NEG-beautiful** one-CLF.person=ERG

lbi *mɛ-slu-sʰi* *ŋuə-ræ.*
urine ASP.NEG-release.unintentionally.3-NMLZ COP.3-SENS
Then, an ugly one (lit. a non-beautiful one) did not urinate accidentally. (RN)

The derivation and use of negated adjectives is extremely restricted in Geshiza, explainable through semantics. First, a formally shorter dedicated adjective with approximating semantic content often exists in the language: **gæ-mi-tɕʰæ* intended meaning 'not big' vs. *dəu~dəu* 'small'. Second, nominalised negated verbs appear in a similar function. For instance, the semantics of the ungrammatical negated prefixed adjective **gæ-mi-ɲəu* (ADJZ-NEG-spicy) with the intended meaning 'not spicy' are expressed through the nominalised negated verb *mi-ɲəu-me* (NEG-be.spicy-NMLZ:S) 'not spicy'. Table 11.5. lists examples of acceptable derivations:

Table 11.5. Examples of adjectival negation

Base verb	Gloss	Negation	Derivation	Gloss
mdze (V2a)	to be beautiful	*mi-mdze*	*gæ-mi-mdze*	not beautiful
mtɕʰær (V2a)	to be good looking	*mi-mtɕʰær*	*gæ-mi-mtɕʰær*	not good looking
ŋi (V1a)	to be good, all right	*mə-ŋi*	*gæ-mə-ŋi*	not good, all right
qʰi (V2a)	to be good, competent ferocious	*mi-qʰi*	*gæ-mi-qʰi*	not good, competent ferocious

11.3.2. Nominal negation

Like nouns, Geshiza lacks a dedicated means for negating nouns category-internally, such as the Japanese *mu-kansin* 無関心 'indifference' from the negator *mu-* and *kansin* 'concern, interest'. Like adjectives, nouns can be negated by negating their source category, which in the case of nouns means verbs before nominalisation: verb > negated verb > nominalisation. To illustrate, *ʤʐɔ* (V2a) 'to be strong, capable' > (NEG-V2s) *mi-ʤʐɔ* 'to be weak, incapable' > *mi-ʤʐɔ-me* (NEG-V-NMLZ:S) 'weakling, incompetent person'. Such negative nominalisations can further be compounded: (NEG-eat-NMLZ:A) *mi-ŋgə-me* 'non-eater' > *va-nt^{h}u-mi-ŋgə-me* (pig-meat-NEG-eat-NMLZ:A) 'Muslim, usually referring to a member of the Hui ethnicity'. Even though the process is productive in general, only some derivations have become lexicalised, a sample of which is listed in Table 11.6, with an example (11.51) offered below:

Table 11.6. Examples of nominal negation

Base verb	Gloss	Negation	Nominalisation	Gloss
ʤʐɔ (V2a)	to be strong	*mi-ʤʐɔ*	*mi-ʤʐɔ-me*	weakling
ɳʤʐa (V1a)	to be same	*mi-ɳʤʐa*	*mi-ɳʤʐa-me*	extraordinary person
tɕ^{h}o (V3b)	to have	*mi-ntɕ^{h}o*	*mi-ntɕ^{h}o-me*	poor person
mk^{h}uə (V2b)	to lack	*mi-mk^{h}uə*	*mi-mk^{h}uə-me*	person of plenty

(11.51) *tɕ^{h}u* *'ŋæma* ***mi-ntɕ^{h}o-me*** *ŋoŋ'* *dæ-jə-s^{h}i* *ŋuə-ræ.*
CONJ really **NEG-have.NPST-NMLZ:A** COP.1 PFV-say.3-NMLZ COP.3-SENS
'I am a really poor person,' he (the man) said. (RN: folktale)

11.3.3. Negative replies

Save the interjection *ʔə̃xə̃* that can be used in negative replies, Geshiza lacks an independent dedicated polarity lexeme 'no' used for giving negative replies to questions. Instead, the speaker produces a complete clause, repeating the verb in its negated form. This is illustrated in a cold-season greeting and its conventional reply (11.52), together with an excerpt from a conversation concerning life in the County Town and the surrounding villages (11.53):

(11.52) *æ-rk^{h}o-ræ.*
Q-be.cold.NPST-SENS
Is it cold? (speaker A)

mi-rk^{h}o-ræ.
Q-be.cold.NPST-SENS
It is not cold. (speaker B; OU)

(11.53) *braŋgu=be* *<tʰetsʰæn>* *ætɕʰə* *ŋuə* *æ-se.*
TOPN=too special.product what COP.3 Q-know.NPST.2SG

dæ-sʰe=ja *dæ-jin=ja.*
PFV-know.PST.2SG=MOD IMP-say.2=MOD
Do you know what the special local products of Danba County Town are? Tell (me) if you know! (speaker A)

<tʰetsʰæn> *mə-səu-ræ,* *braŋgu=tʰə* *sʰo.*
special,product MOD.NEG-know.NPST.1SG-SENS TOPN=TOP DM
I don't know what the special local products of Danba County Town are. (speaker B)

<suæntsʰɛmiænkʰuər> *ŋuə=gæ,* *<tʰetsʰæn>.*
pickled.vegetable.noodles COP.3=MOD special.product
The special products are pickled vegetable noodles. (RC; speaker A)

Typological remark
Typologically, answers to questions follow two major patterns: yes-no answers and verb-echo answers (Holmberg 2016). The former consists of an affirmative or negative 'particle', the latter echoing the verb of the question in either an affirmative or negative form, depending on the nature of the desired answer. Of these Geshiza prefers the verb-echo strategy.

Disagreement and self-repair
Different from negative replies discussed above, the negative copula *mŋa ~ mja* (see §11.2.4) is frequently used in conversation for disagreement, namely to negate the interlocutor's statement. This mirrors the use of the copula *ŋuə* to indicate the speaker's agreement with the interlocutor. In (11.54), an elderly couple discusses the correct form of a traditional story, and the wife expresses a differing opinion concerning the plot of the story narrated by her husband:

(11.54) *tsʰoŋpən=ke* *oja* *ɲi* *rji* *dæ-ŋuə-sʰi* *tɕʰu* *xaræ*
merchant=DAT INTERJ 2SG.GEN horse PFV-COP.3-IFR CONJ CONJ

kʰuæn=bɔ. *dæ-v-tɕʰi=ræ* *dæ-ɕʰə sʰə-mə-ræ.*
give.NPST.2=MOD PFV-INV-ride PST.3=LNK PFV-go.PST.3-IFR-EP-SENS
He (*a khu ston pa*) said to the merchant: 'Yes, it is your horse, so I will give it (back) to you,' and he rode the horse, going away. (speaker A)

*‘**mɲa.*** *rə-ʑe-s^{h}ə-mə-ræ.’*
NEG.COP.3 PFV.DIR-come.3-IFR-EP-SENS
No. He came back (to the merchant). (speaker B) (RN: folktale mixed with conversation; see (§2.7.4 for *a khu ston pa*)

Similarly, the negative copula *mɲa ~ mja* appears as a means of self-repair when speakers change their mind or become conscious of a need to modify or outright negate their previous statement (11.55):

(11.55) *dzi dæ-ŋgoŋ ɲo lɔ næ-ʑə~ʑan. buʑike wə-ɕ^{h}ə~ɕ^{h}oŋ.*
food PFV-eat.1PL after again PFV.DIR-RED~come.1 TOPN PFV.DIR-RED~go.PFV.1

mɲa, *xo ə p^{h}oloɣuə=dʑe wə-ɕ^{h}ə~ɕ^{h}oŋ.*
NEG.COP.3 DEM.LOC HES TOPN=TOP PFV.DIR-RED~go.PFV.1
After eating we came back downwards again and went to *buʑike*. No. we went to that place, to *p^{h}oloɣuə*. (RN: chronicle)

11.4. Other aspects of negation

Remaining prominent aspects in the domain of negation in Geshiza are introduced below. The language has double negative constructions (§11.4.1); a negative polarity item (§11.4.2); and ways to reinforce negation (§11.4.3).

11.4.1. Double negative constructions

Typologically, languages differ in their treatment of double negatives, namely clauses containing two or more forms of negation. The result in either affirmative (*duplex negatio affirmat*) or negative (*duplex negatio negat*). In Geshiza, double negative constructions give rise to positive semantics (11-56-11.58). Double negation occurs when two verbs are negative. Detachment of the negators for emphasis (see §11.4.3) also involves negation in two loci.

(11.56) *lmæ=ɲu <tɕ^{h}int^{h}ie> dæ-v-læ tɕ^{h}a-ræ ʐpjæ*
3=PL.ERG invitation.card PFV-INV-send.3 COND=LNK give.gifts.INF

***mi-**ɕə* ***mə-**ŋi-ræ=je.*
NEG-go.NPST.3 **MOD.NEG-**be.all.right-SENS=MOD
When getting an invitation card (to a wedding), one needs to go to give gifts! lit. If (people) send invitation cards, there is no way not to go to give gifts! (RC)

(11.57) *<pʰiəutsə>* *ɕua-ʑæ=ke=tʰə* *<tsətsʰə>* ***mi****-və-ʑæ*
money search=NMLZ:P=DAT=TOP supporting **NEG**-LV:do-NMLZ:P

æ-ntsʰæ ***mi****-ntɕʰoŋ=je.* *stəu* *we*
one-CLF-little.bit **NEG**-have.NPST.1PL=MOD everyone.ERG home

n-a-ŋi *gæ-ntsoŋ-sʰi* *ŋuə=me.*
DIR-OPT-go.well IPFV-think.PST.1PL-NMLZ COP.3=MOD
We support you in everything in trying to find an income. We all hope that things go well at home. lit. There is nothing we don't support in (your) looking for money. We all think (i.e. hope) that things are well at home. (RC)

(11.58) *<sæntəutɕʰəu> -skæ* *spjar-vɛ-skæ=dʑe* *mi-ɳdʑa* *tɕʰu.*
TOPN-language TOPN-NAT.GEN-language=TOP NEG-same CONJ
The languages of Sandaoqiao and Bian'er are different. (speaker A)

skæ=næ *næ-****mɛ****-ɳdʑa-sʰi* ***ma****=je* *sʰo.*
language=DU PFV.DIR-**ASP.NEG**-be.same-IFR **NEG.EXV**=MOD DM

ækʰo-skæ *ɳdʑaɳdʑa* *ŋuə=mde.*
distal.upriver.LOC-language same COP.3=MOD
It is not that they are different. All language upriver is the same! (speaker B) (RC)

A double negative construction with a negated infinitive together with the special non-argument nominaliser *-rgui* 'permission' (see §4.3.7.3 in the context of complex predicates) followed by the negative existential negative verb *ma* (see §11.2.5). The construction indicates strong necessity and compulsoriness of something (11.59). Taken literally, the construction means 'not V is not allowed'. Parallels exist in other Asian languages: for instance, the Japanese modal construction *V-nakereba naranai,* literally 'if not V, will not become', expressing strong necessity. The construction has an affirmative pair in which *ma* is replaced with its affirmative counterpart *də*, having the meaning 'to have permission to do something' (11.60):

(11.59) *'dæ-di-ɕin'* *dæ-jə=ræ* ***mi-ɕə-rgui***
IMP-IRR.NEG-go.NPST.2 PFV-say.3=LNK **NEG-go.NMLZ:permission**

ma-ræ.
NEG.EXV-SENS
'Don't go!' she said, but he had to go. lit. He not going is not allowed. (RN: folktale)

(11.60) *<ʈʂʰetsə>* ***mʐdə-rgui*** ***də-ræ*** *=gæ.*
car **change-NMLZ:permission** **EXV-SENS**=MOD
Changing the car is allowed. (RC)

As discussed in §11.2.6, the inanimate existential verb *də* is incompatible analytic negation through prefixation and the negative inanimate existential verb *ma* is to be used instead. Consequently, when saying that the existence of something inanimate is necessary, the first negative in the double negative construction is encoded lexically, rather than morphologically (11.61):

(11.61) *<ʈʂʰetsə>* ***ma-rgui*** ***mæ-ræ*** *=gæ.*
car **NEG.EXV-NMLZ:permission** **NEG.EXV-SENS**=MOD
A car is necessary. (MEE)

As in other cases with the existential verbs *ma* and *də*, if a subject is included, it must appear in the genitive typical for experiencers (11.62), the zero-marked absolutive being grammatically incorrect (11.63):

(11.62) ***ŋɛ*** *mi-ɕə-rgui* *ma-ræ.*
1SG.GEN NEG-go-NMLZ:permission NEG.EXV-SENS
I have no option but to go. (MEE)

(11.63) ****ŋa*** *mi-ɕə-rgui* *ma-ræ.*
1SG NEG-go. NMLZ:permission NEG.EXV-SENS
Intended meaning: I have no option but to go. (REJ; see 11.54)

A second double negative construction involves a verb negated with the irrealis negative *-di- ~ -dʐi-* and it typically cooccurs with the negated verb *mə-ŋi* 'it is not all right, it won't do' that is occasionally omitted (11.64). Unlike the double negative construction with the infinitive introduced above, the irrealis double negative construction allows for person indexation.

(11.64) *æpa=ke* *bɔ* *dæ-**dʐi**-joŋ=ræ* *dæ-**dʐi**-ʑəməmoŋ=ræ.*
father=DAT thus PREF-**IRR.NEG**-say.3=LNK PREF-**IRR.NEG**-discuss.3=LNK

***mə**-ŋi-ræ=gæ.* *ŋɛ* *væ* *ŋuə* *tɕʰu* *joŋ-mə.*
MOD.NEG-be.allright-SENS 1SG.GEN dad COP.3 CONJ say.1-EP
It is not fine for me not to tell thus (e.g. all these things) to my father and discuss (them with him). He is my dad, (I am saying). (RC)

11.4.2. Negative polarity

Negative polarity refers to expressions the distribution of which is restricted to the negative context. In Geshiza, the discourse enclitic *=m(d)e* 'only' (see also §13.5.3) requires a negated main verb (11.65-11.66). In this, it behaves like the Japanese *sika* 'only' and Tibetan *ma gtogs* 'only' To understand its compulsory association with the negative, the exact semantics of *=m(d)e* can be thought of as 'apart from, besides'. In addition to *=m(d)e,* no other negative polarity items were attested in the source materials.

(11.65) *bəsni=tʰə* *mdzo=ke* *<fænbiænmiæn>* ***=mde*** ***mɛ-ŋgoŋ-sʰə-mə.***
today=TOP lunch=DAT cup.noodles=**only** **ASP.NEG-eat.1PL-IFR-EP**
Today we had only cup noodles for lunch. (RN: chronicle)

(11.66) *ŋæ=ɲi* *dəu~dəu* *tɕʰa=tʰə* *dʑədə* *ɕʰiɕʰi=**me***
1=PL.GEN small~RED time=TOP book with.low.intensity=**only**

mɛ-van-sʰi ***ŋuə.***
ASP.NEG-LV:do.1-NMLZ **COP.3**
In our youth, we studied only a little. (RN: personal history)

(11.67) *tʰævæ* *rju-ŋguæ-sqʰa* *næ-ŋkʰui* *tɕʰa=ræ* *<ju>* *wnæ-sqʰa*
now hundred-five-ten PFV-put.in.2SG COND=LNK oil two-ten

<konɕən> *bɔ=kʰa=**mde*** *sʰo* ***næ-mi-ve-ræ.***
litre like=about=**only** more **DIR-NEG-go.SUPPL.3-SENS**
If you now buy gasoline with 150 yuan, you get only about 20 litres. lit. If you now put in 150 (yuan), only approximately 20 litres of oil, not more, go in. (RC)

11.4.3. Reinforcing negation

Geshiza has three primary strategies for reinforcing negation: use of adverbs, detachment of the negators, and an emphatic construction. First, negation in Geshiza is reinforced through adverbs, mainly *kəŋkən* 'at all (negative), (affirmative)' (11.68):

(11.68) *e* *<tɕantɕyn>=ɲə* *gæ-mɛ-ʑe-sʰi* *ŋuə.* ***kəŋkən***
DEM general=PL IPFV-NEG-COME.3-NMLZ COP.3 **at.all**

gæ-mɛ-ʑe-sʰi *ŋuə.*
IPFV-ASP.NEG-COME.3-NMLZ COP.3
The generals did not come (back home). They did not come (back home) at all. (RN: folktale)

Second, a negator may be 'detached' from its host verb and followed by the contrastive-emphatic topicaliser enclitic =*nɔ* (see §13.3.2) to reinforce negation (11.69). The detachment is incomplete and duplicative in the sense that the predicate still requires the presence of the negator in the predicate.

(11.69) *tʰə=tʰə* *ɲəma* *a̱na* *bɔtʰə* *n-ə-vɕæ-me* *dæ-ŋuə.*
DEM=TOP past past like.that PREF-NACT-speak.NPST.3-NMLZ:P PFV-COP.3

s↓ *tʰə* *ŋæ=ŋu* *tɕʰəsʰo* ***mə=nɔ*** ***mə-san.***
PARAL DEM 1=PL.ERG DM **MOD.NEG=EMPH** **MOD.NEG-know.NPST.1PL**
It was said like that in the past. We (the younger generations) have no idea at all about that. (RN: local history)

Finally, using the contrastive-emphatic topicaliser enclitic =*nɔ* (see adjoining and emphasising the constituent preceding the predicate verb carries the function of reinforcing negation (11.70, 11.71):

(11.70) *ŋa=tʰə* ***æ-ntsʰæ=nɔ*** ***mɛ-vdo=je.***
1SG=TOP **one-CLF.little.bit=EMPH** **ASP.NEG-SEE.1SG=MOD**
(Isn't he in Bian'er now?) I haven't seen him around at all! (RC)

(11.71) *bəsni* ***æ-ŋɛ=nɔ*** ***mɛ-ɕʰoŋ.***
today **one-CLF.place=EMPH** **ASP.NEG-go.PST.1**
I didn't go anywhere at all today. (MEE)

If the predicate verb itself is to be emphasised, it needs to be repeated in the affirmative V=*nɔ* NEG-V (11.72, 11.73). While person indexation properties are maintained, tense and aspect are reduced to the aspectually non-marked non-past form, as can be seen from example (11.72):

(11.72) *mə-səu=bɔ.* *rjoŋ=**nɔ*** ***gæ-mɛ-rjoŋ.***
MOD.NEG-know.NPST.1SG=MOD ask.1PL=**EMPH** **IPFV-NEG-ask.1PL**
I don't know! We did not even ask. (RC)

(11.73) *məsni* *gəndɔ* *wro=**nɔ*** ***mɛ-wro.***
today strongly dry=**EMPH** **ASP.NEG-dry**
(The pig food) did not dry properly at all today. (RC)

11.5. Summary

This chapter described the system of negation in Geshiza. The language avails of four negative prefixes used for standard negation and other negative strategies. The grammatical architecture of the language additionally includes a dedicated negative copula *mɲa ~ mja* and a dedicated negative existential verb *ma*. In Geshiza, negation pertains to the domain of verbal morphology, since the language lacks dedicated strategies for negating nouns and adjectives category-internally. In addition to their use with the negative copula, nouns and adjectives are only compatible with negation when they derive from verbs, being thus negative adjectivisations and nominalisations.

CHAPTER TWELVE
Clause combining and complex clauses

Chapter eight discussed simple clauses in Geshiza. The current chapter complements the discussion by introducing and analysing the ways of combining clauses and forming complex clauses. The discussion commences with an introduction (§12.1) and clausal coordination (§12.2). Subsequently, three main types of subordinate clauses are discussed: adverbial clauses (§12.3); complement clauses (§12.4); and relative clauses (§12.5). The results are summarised at the end of the chapter (§12.6).

12.1. Introduction

Complex clauses, the topic of this chapter, are defined as syntactic structures containing more than one clause. Recall that §7.1. defined clause in Geshiza as a syntactic unit that minimally includes an obligatory predicate. Geshiza complex clauses consist of coordinative clauses, and three kinds of subordinate clauses, namely adverbial clauses, complement clauses, and relativisation. In clausal coordination, two independent clauses are joined together. Subordination includes at least one subordinate (dependent) clause in addition to a main (independent) clause. In turn, complementation is defined here as 'the syntactic situation that arises when a notional sentence or predication is an argument of a predicate. (Noonan 2007a: 52). Finally, relative clauses are defined here as clause-sized modifiers embedded in the noun phrase (Givón 2001a: 175). Functionally, they narrow the potential reference of an expression to referents of which a particular proposition holds true (Comrie and Kuteva 2013).

12.2. Coordination

Clausal coordination in Geshiza is accomplished through three main strategies: juxtaposition, also known as zero strategy (§12.2.1); the use of the coordinative linker enclitic *=ræ* (§12.2.2); with the discourse intensifier *=be* 'both-and' (§13.3).; and by means of the conjunction *mɛ-mɲa ~ mɛ-mja* 'either ~ or' (§13.4).

12.2.1. Zero strategy

In Geshiza, zero strategy is the simplest way to join clauses independent of each other by juxtaposition into one sentence as an intonational unit (12.1). This often encodes a sequential temporal 'and' relationship between the clauses, indicating events happening in succession.

Alternatively, the zero strategy is used for emphatic purposes with iconic reduplication of the predicate (see §4.3.5.5), which carries the meaning 'V again and again, V for a long time'. This identical repetition can also be termed 'syntactic reduplication'. Example (12.2) implies that coming down from the mountains was an arduous task taking a long time.

(12.1) [*dʑədə* *və* *wə-ɕu.*] [*gæ-lxoŋ.*]
letter LV:do.3.INF PFV.DIR-send.PST.1SG PFV.DIR-reach.1
I sent (my son) to study (lit. to do the letters) and came back (home). (RN: chronicle)

(12.2) [*ɕʰiɕʰi* *wə-ʑan*] [*wə-ʑan*] [*wə-ʑan.*]
slowly PFV.DIR-come.1 PFV.DIR-come.1 PFV.DIR-come.1
We came down slowly. (RN: chronicle)

12.2.2. Linker *=ræ*

Appearing with a far higher frequency, clause conjoining by the enclitic linker *=ræ* (glossing: LNK) constitutes the default strategy in Geshiza (12.3). The use of the linker *=ræ* in conjoining clauses is identical to its use in conjoining individual nouns and noun phrases: *æpæ=ræ æmæ=ɲə* (father=LNK mother=PL) 'father and mother' (see §5.7 for noun phrase coordination). The linker is one of the most common morphemes in Geshiza. It can frequently be omitted, yet it's presence is preferred, probably also due to rhythmical reasons in the language, especially in stories where it keeps the flow of narration smooth (12.4).

(12.3) [*æ-ŋɛ* *dæ-ɕʰoŋ*] **=ræ** [*gæ-nd͡ʑeran-sʰi.*]
one-CLF.place PFV-go.PST.1=**LNK** IPFV-happy.1-IFR
I went to a certain place and felt happy. (RN: dream)

(12.4) [*ʑætʰa* *gɔ-jær* *dæ-wi*] **=ræ** [*xaræ* *rkəmæ=ɲu* *ʐama*
bracelet ADJZ-good PFV-EXV=**LNK** CONJ thief=PL.ERG really

ʑa *dæ-v-kuæ*] **=ræ** [*e=tʰə* *dæ-n-tæpæ-sʰi* *ŋuə.*]
hand PFV-INV-cut.PST.3=**LNK** DEM=TOP PFV-AB-remove.PST.3-NMLZ COP.3
(She) had a very good bracelet and the thieves cut (her) hand and snatched that (from her) (RN: local history)

12.2.3. Both-and *=be*

The notion of 'both-and' regarding nominal constituents, e.g. 'both butter and machine oil', ointments used for animal wounds, is not expressed at noun phrase level, but requires the coordination of two clauses with the discourse intensifier *=be* (see §13.5.1), as illustrated in (12.5, following page):

(12.5) [***<xuaŋju> =be*** *æ-nts^{h}æ* *dæ-məu.*] [***<tɕiju> =be***
butter=too one-CLF.little.bit PFV-spread.1SG **machine.oil=too**

æ-nts^{h}æ *dæ-məu.*]
one-CLF.little.bit PFV-spread.1SG
I spread both butter and machine oil (on the wound of the calf). (RC)

12.2.4. Disjunctive *mɛ-mŋa ~ mɛ-mja*

Geshiza has a grammatical structure for expressing alternativity between clauses. *mɛ-mŋa ~ mɛ-mja,* negation of the negative copula *mŋa ~ mja* (see §11.2.4) operates in complex clauses, coordinating two alternatives: 'either A or B, if/when not A, then B'. As elsewhere in Geshiza, double negation (NEG-NEG.COP.3) generates a positive semantic interpretation. *mɛ-mŋa ~ mɛ-mja* is commonly placed in a clause-initial position of both coordinated clauses. In (12.6), the speaker explains a happy dream he saw, but he does not remember the details accurately. For clarity of glossing, I gloss the morphologically complex conjunction as a single word: 'either'.

(12.6) [*æ-ŋɛ* *dæ-ɕ^{h}oŋ=ræ* *gæ-ndʐeran-s^{h}i.*] *o* [***mɛmja***
one-CLF.place PFV-go.PST.1=LNK IPFV-happy.1-IFR INTERJ **either**

skærva *dæ-ɕ^{h}oŋ-s^{h}i.*] *o* [***mɛmja*** *vdʐæɕ^{h}i* *ŋæ=ɲə*
circumambulation PFV-go.PST.1-IFR INTERJ **either** friend 1=PL

æqɛ *wə-ndzə~dzoŋ-s^{h}i.*]
all PFV-RED~sit.1-IFR
I went to a certain place and felt happy. I went either to circumambulate or I was sitting together with friends. (RN: dream)

The conjunction *mɛmŋa ~ mɛmja* may coordinate more than two clauses in Geshiza. In (12.7), the speaker explains how life was before electrification in Balang Village, narrating that people either used firewood, fatwood, or kerosene lamps for light:

(12.7) [***mɛmŋa*** *wmo* *g-ə-v-t^{h}o* *wə-ndzə~dzo.*]
either fire PREF-NACT-INV-kindle.NPST.3 PFV~RED~sit.3

[***mɛmŋa*** *təkwa* *g-ə-vzær.*] [***mɛmŋa*** *liaŋ* *g-ə-zvær.*]
either fatwood PREF-NACT-light.3 **either** lamp PREF-NACT-light.3
(Before electrification,) we either lighted a fire and sat, or lighted fatwood, or lighted (kerosene) lamps. (RN: local history; see §2.7.4. *Electrification and storytelling* concerning electrification and its cultural effects in Geshiza Valley)

Even when the focus of alternation is two noun phrases, 'either NP X or NP Y', two full coordinative clauses must be used (12.8):

(12.8) <*xoko*>, [***mɐmja*** <*xoko*> *ŋgə* *d-ə-ɕoŋ*.]
hot.pot **either** hot.pot eat.INF PREF-NACT-go.NPST.1

[***mɐmja*** <*ʈʂʰuæntʂʰuæntɕan*> *ŋgə* *ɕoŋ*.]
either meat.skewers eat.INF go.NPST.1
Let's go to eat Chinese hotpot or Sichuanese style meat skewers. (RC)

12.3. Adverbial clauses

Geshiza sentence structure places adverbial clauses before the main clauses. They are morphologically typically marked with suffixal adverbialisers (also known as converbalisers) that indicate their relationship with the main clause. In a subset of adverbial clauses, the amount of available categorical distinctions is reduced. Table 12.1 lists the common adverbial clause types in Geshiza together with their morphological markers that do not formally constitute a unified system. Applying a macro-division for the ease of discussion herein, Geshiza adverbial clauses consist of the following types: temporal (§12.1); conditional (§12.2); concessive (§12.3), and causal (§12.4). All of these, save simultaneous, include finite verbs. The category of evidentiality never surfaces in adverbial clauses. In other words, if evidentials are used, they are hosted by the predicate in the main clause and have scope over the whole sentence.

Table 12.1. Taxonomy of adverbial clauses in Geshiza

Main type	Subcategory	Adverbialiser	Glossing	Host type
Temporal	Concurrent	*=ʑær*	while	Non-finite verb
	Sequential	*=ke*	SEQ	Finite verb
	Posterior	*ɲo*	after	Finite verb
	Temporal background	*tɕʰa*	when	Finite verb
Conditional	General conditional	*tɕʰa*	COND	Finite verb
	General conditional	*=zə*	COND	Finite verb
	Hypothetical	*=navzoŋ*	HYPO	Finite verb
	Counterfactual	*=navzoŋ*	CF	Finite verb
	Scalar concessive	*=be*	CONC.SC	Finite verb
	Universal concessive	*=na*	CONC.U	Finite verb
Causal	Cause	*=wo*	cause	Finite verb

12.3.1. Temporal relationship

Temporal relationship between the subordinate and main clauses is expressed through four adverbialisers: concurrent *-zær* (§12.3.1.1); sequential *=ke* (§12.3.1.2); posterior *ɲo* (§12.3.1.3); and temporal backgrounding of an event *tɕʰa* (§12.3.1.4).

12.3.1.1. Concurrent relationship *=ʑær*

The adverbialiser *=ʑær* (glossing: while) encodes concurrent events or action in the subordinate and main clauses sharing a subject (12.9):

(12.9) *lŋa* ***kʰrə=ʑær*** *leska* *vu.*
child **hold.INF=while** work do.1SG
I work while holding/taking care of the baby. (MEE)

In pragmatic terms, simultaneity often implies alternation, rather than two kinds of simultaneously ongoing action with perfect overlap (12.10, 12.11). For instance, In (12.10), the subjects returning from the mountains walk down a short distance and rest, subsequently starting to walk again and then stopping to rest, repeating the sequential cycle:

(12.10) *æ-tɕə* *tɕæ-wo* *ne=ʑær=dze* *wə-ʑan,* *næ-ro*
CLF.leg.of.trips road-SUPE rest.INF=**while**=TOP PFV.DIR-come.1 DIR-ADV

næ-tje *rka-ræ.*
DIR-come.INF be.hard.NPST-SENS
On the road (back home), we rested and walked, rested and walked. It is hard to come back (from the mountains). (RN)

(12.11) *<ʈʂəu> =ɲə* *ra=ʑær* *bɔtʰə* *næ-ʑə~ʑan.*
photo=PL hit.INF=**while** like.this PFV.DIR-RED~come.1
We came down (from the festival place) taking photographs. (RN)

Exceptionally among the adverbialisers, *=ʑær* requires the infinitive (§4.3.6), and argument indexation is marked only in the main clause: *leska və=ʑær* 'while working', not e.g. **leska vu=ʑær* with the intended meaning 'while I work'. As Table 12.1. on the previous page illustrates, all other adverbialisers in Geshiza attach to finite verb hosts.

Additional construction with =ʑær

Duo'erji (1997: 101) describes a formally distinct, yet semantically resembling use for the adverbialiser *=ʑær*. Two subordinate clauses both marked with *=ʑær* cooccur with a main

clause with the light verb *və* (V4; see §4.3.7.1) 'to do' to describe concurrent action (12.12). The construction was not attested in the source materials of this grammar likely due to limitations of scope, but the construction was deemed grammatical by native speakers and can be considered to exist in Eastern Geshiza

(12.12) *ŋa* *ŋgə=**ʑær*** *dæ=**ʑær*** *vəu.*
1SG eat.INF=**while** do.INF=**while** LV:do.1SG
I eat and do (something) at the same time. (Duo'erji 1997: 101; glossing and conversion to standard IPA by the author, first person form slightly different from Balang Geshiza)

12.3.1.2. Sequential relationship *=ke*

The adverbialiser *=ke* (glossing: SEQ) encodes a sequential relationship between an adverbial and main clause (12.13, 12.14). In other words, two or more events appear in temporal succession. In (12.13), for instance, the speaker first picks his wife up from work and then drives home, the two events taking place in temporal succession.

(12.13) *rjəu* *gæ-ɕu=**ke*** *we* *gæ-lxoŋ.*
wife DIR-pick.up.PST=**SEQ** home PFV.DIR-return.1
I picked my wife up and returned home. (RN: chronicle)

(12.14) *va-dzi* *ko* *st^{h}əu=**ke*** *rgo=ke* *wrə* *dæ-s-tu.*
pig-food give.INF finish.NPST.1SG=**SEQ** cow=DAT water PFV-CAUS-drink.1SG
I finished fiving the pigfood (to the pigs) and gave water for the cows. (RN: chronicle)

The adverbialiser *=ke* shares its form with the dative case enclitic *=ke* (see §5.3.4) also used for coding the semantic role of Time (see §7.4.10). In this grammar, I interpret the dative enclitic as having evolved a secondary role as an adverbialiser. For the sake of clarity, however, I gloss the two functions differently.

12.3.1.3. Consecutive relationship *ɲo*

The postposition *ɲo* 'after'(§4.8.10) is used as an adverbialiser that encodes a temporal relationship between the adverbial and main clauses in which the action or event of the main clause follows after the complete end of that of the subordinate clause (12.15, 12.16):

(12.15) *braŋgu* *wə-təu* ***ɲo*** *æmæ* *ɕ^{h}i* *gæ-ɕ^{h}oŋ.*
TOPN PFV.DIR-reach.PST.1SG **after** mother pick.up.INF PFV.DIR-go.PST.1
After reaching Danba County Town, I went to pick up (my) mother. (RN: chronicle)

(12.16) *mele* *dæ-mə* ***ɲo=ræ~ræ*** *ts^{h}ə=ræ* *<xɛtso>=ɲə*
noodles PFV-be.cooked after=LNK~RED salt=LNK red.pepper=LNK

wə-ŋk^{h}oŋ.
DIR-put.NPST.1PL
When the noodles have become cooked, we put the salt and the red pepper in. (RN: procedure)

The adverbial clause need not have the same subject as the main clause (12.17):

(12.17) *dzi* *dæ-ŋgoŋ* ***ɲo*** *ŋa* *<keʂan>* *rə~ræ*
food PFV-eat.1PL **after** 1SG town buy~RED.NMLZ:ACT

æ-nts^{h}æ *dæ-vu.*
one-CLF.little.bit PFV- LV:do.1SG
After we ate, I did a bit of shopping in the town (RN: chronicle)

As shown in the ungrammatical example (12.18), the postposition *ŋui* 'before', the antonymic counterpart of *ɲo* 'after', has not evolved into an adverbialiser of anterior temporal relationship in Geshiza. One reason behind this undoubtedly is that as the unmarked default communicative strategy, the unveiling of events is more frequently narrated in chronological order.

(12.18) **dzi* *dæ-ŋgoŋ* ***ɲui*** *ŋa* *<keʂan>* *rə~ræ*
food PFV-eat.1PL **before** 1SG town buy~RED.NMLZ:ACT

æ-nts^{h}æ *dæ-vu.*
one-CLF.little.bit PFV-LV:do.1SG
Intended meaning: Before we ate, I did a bit of shopping in the town (REJ; see 12.17)

12.3.1.4. Temporal backgrounding *tɕ^{h}a*

The postposition *tɕ^{h}a* 'on, above, when' (see §4.8.3) used as an adverbialiser (glossing: when) encodes the temporal background of the adverbial clause in which an event expressed by the main clause takes place (12.19, 12.20):

(12.19) *lmæ=ɲu* *'zju'* *gæ-jə* ***tɕ^{h}a=zɔ*** *g-ə-rə-ʑæ*
3=PL.ERG sell.1SG IPFV-say.3 **when**=only PREF-NACT-buy-NMLZ:P

ŋuə-ræ=mde.	*guədo*	*'ru'*	*dæ-jin*	*tɕʰu*	*goŋ*	.
COP.3-SENS=MOD	self.ERG	buy.1SG	PFV-say.2	CONJ	price	

tɕʰæ-pʰə-ræ
be.big-AUX.CAUS.NPST.3-SENS
Only when they are saying 'I will sell a car', one is to buy one. If you yourself say 'I buy', they will make the price more expensive. (RC)

(12.20)

xaræ	*rzəu=wo*	*mæ*	*zə-bji*	***tɕʰa=ræ***	*gæ-v-dæ.*	[…]
CONJ	leopard	sky	PROSP-dawn	**when**=LNK	IPFV-do.3	[…]

The leopard was doing (that noise) when the day was about to dawn. (RN: family history)

Since the adverbialiser *tɕʰa* is a postposition and postpositions belong to macro-nominals (see §4.1), it may host plural number marking (see §5.2.4), a feature of macro-nominals. Plural marking in (12.21) encodes the possibility for multiple visits to the toilet:

(12.21)

lbi	*læ*	*ɕin*	*tɕʰa=**ɲə***	*ŋɣæzdoŋ-ɣa=bɔ.*
urine	LV:release.INF	go.NPST.2	when=**PL**	stumble.2-APPR=MOD

Take care not to stumble (and fall down from the rooftop) when going to urinate (at night). (UA)

12.3.2. Conditional relationship

Geshiza has two conditional types: general conditionals (§12.3.2.1) and hypothetical-counterfactual conditionals (§12.3.2.2).

12.3.2.1. General conditionals

General conditional in Geshiza 'if X then Y' is a complex clause construction consisting of protasis (dependent clause) and apodosis (main clause). Commonly, general conditionals are formed with the postposition *tɕʰa* 'on, above, when' (see §4.8.3) functioning as an adverbialiser (glossing: COND). It attaches to the protasis in the perfective aspect, followed by the apodosis (12.22, 12.23). Having the protasis in the perfective aspect is widely attested in the regional context of Geshiza (Sun 2007: 803).

(12.22)

vdzi	*ɑ̨rəu*	***dæ-ma***	***tɕʰa***	*mə-ŋi-me*	*ŋuə-ræ=gæ.*
person	shadow	**PFV-NEG.EXV**	**COND**	NEG-good-NMLZ	COP.3-SENS=MOD

If a person has no shadow, there is something wrong with him/her. (lit. he or she is not a good one). (MEE; According to a Geshiza belief, an evil spirit taking a human form has no shadow.)

(12.23) ***dæ-ʤʐoŋ*** ***tɕʰa*** *kʰrə* *yæ-wtɕʰəu=tʰə* *wnæ-ko-tɕʰa*
PFV-be.diligent.1 **COND** yuan ten-six=TOP two-CLF.year

ru-ræ=je, *ŋa=wo.*
find.1SG-SENS=MOD 1SG=ERG
If I am diligent, I will earn 160,000 yuan in two years. (RC)

Adverbial clauses with the adverbialiser of temporal backgrounding (see §12.3.1.4) and general conditionals resemble each in Geshiza. The two clause types coalesce in the aorist (see §8.3.1), namely the past tense cooccurring with the perfective aspect. Likewise similarity across languages has not gone unnoticed. For instance, in a typological study with a semantic viewpoint, Dixon and Aikhenvald (2009: 14) point out a close association between conditional and temporal clause linking, classifying the former under the latter. Against the aforementioned, the context helps in determining that (12.24) is a temporal, not conditional complex clause. Since the discussed person has merely left home for a short time, she is expected to come back.

(12.24) *joŋʤʐoŋ* ***dæ-ʑe*** ***tɕʰa=ræ*** *ɕoŋ,* *æ-ŋuə-ræ.*
PN **PFV-come.3** **when**=LNK go.NPST.1, Q-COP.3-SENS
Pragmatically correct reading: Let's go when *joŋʤʐoŋ* comes back, right? (RC)
Pragmatically incorrect reading: Lets's go if *joŋʤʐoŋ* comes back, right?

Negation shows that general conditionals belong to the realm of realis in Geshiza (12.25). If they were irrealis, the irrealis negator *-di- ~ -dʑi-* (see §11.2.3) would have to be used.

(12.25) *lmæ=jə=ke* *kʰoŋ* ***mɛ-vɕʰe*** ***tɕʰa*** *sʰo*
3=PL=DAT give.NPST.1PL **ASP.NEG-AUX.need.PST** **COND** more

ru-ræ=gæ.
find.1SG -SENS=MOD
If we didn't have to give (money as rent to them), I would earn more. (RC)

Topicalisation of the protasis general conditional
As illustrated in (12.26, following page), the protasis is frequently topicalised in Geshiza (see §13.3 for topic; see also Mazaudon 2003 for a report on topicalisation of the protasis in conditionals of Tamang). Haiman (1978) argues that conditionals are topics, illustrating cross-linguistic similarities in topic and conditional marking.

(12.26) **<konʂe> =k^{h}a ndzo-ko dæ-ŋuə tɕ^{h}a=t^{h}ə** ŋi-ræ.
commune=about stay-NMLZ:LOC PFV-COP.3 COND=TOP be.all-right-SENS
If there is a place for staying close to the commune, things are good. (RC; see 2.8.1. *Incorporation into the PRC and modern times* for the meaning and continued use of the Chinese term *gōngshè* 公社 'commune' borrowed into Geshiza.)

Alternative strategy for forming the general conditional
Less frequently, the general conditional adverbialiser *=zə* appears in lieu of *tɕ^{h}a* (12.27, 12.28). I have not identified semantic or functional difference between the two alternative general conditional formations.

(12.27) <ɕəufe> və mɛ-tɕan=**zə** ætɕ^{h}ə vɕe.
consumption LV:do.INF ASP.NEG-AUX.can.PST.2=**COND** what want.NPST
If you don't have the money, what do you want (say with those things you have been talking about)? (speaker A)

(12.28) s-kærkær mɛ-tɕæ=**zə** næ-mbarjan.
[VBLZ-circle].INF ASP.NEG-have.time.PST=**COND** IMP-step.over.1
If you have no time to go around, step over me. (RC: folktale; speaker blocking a road by laying on it)

Geshiza conditional adverbialiser *=zə* is a cognate to Wobzi Khroskyabs conditional enclitic *=zə* (Lai 2017: 467-468). This offers a perspective to Geshiza. It seems that *=zə* is historically older, the function of which has mostly been taken over by *tɕ^{h}a*.

12.3.2.2. Hypothetical and counterfactual conditionals

Geshiza has two types of 'imaginative' conditionals: hypothetical and counterfactual. Both constructions are rare in the language. In the language, the former expresses what could hypothetically happen, while the latter is used for events that could have, but didn't happen. Both types of imaginative conditionals in Geshiza are formed with a dedicated hypothetical adverbialiser *=navzoŋ*.

In hypothetical conditionals, *=navzoŋ* (glossing: HYPO) is postposed to the non-past stem of a verb (12.29). No contexts where the use of the hypothetical counterfactual is obligatory were identified. For instance, (12.29) may be rephrased into an ordinary conditional with no great alteration in meaning (12.30). Comparing the two, the hypothetical conditional emphasises the likelihood of an event: 'in case of X, then Y'.

(12.29) *e=je* *zgædær* *ɣuəgo* *qæʑe* ***ne=navzoŋ***
DEM=GEN large.prayer.flag.pole top crow **rest.3=HYPO**

læma=ts^{h}əu *v-dæ* *tɕ^{h}u.*
lama=ASS.ERG INV-hit.and.curse.3 CONJ
If a crow rests on top of that large prayer flag pole, the lamas will curse and hit you. (RN: folktale; *a khu ston pa* (see §2.7.4. *Major story types*) attempts to deceive a gullible man into guarding a prayer flag pole of a monastery.)

(12.30) *e=je* *zgædær* *ɣuəgo* *qæʑe* ***dæ-ne*** ***tɕ^{h}a***
DEM=GEN large.prayer.flag.pole top crow **PFV-rest.3** **COND**

læma=ts^{h}əu *v-dæ* *tɕ^{h}u.*
lama=ASS.ERG INV-hit.and.curse.3 CONJ
If a crow rests on top of that large prayer flag pole, the lamas will curse and hit you. (ACC; see 12.29)

In contrast, counterfactual conditionals with *=navzoŋ* (glossing: CF) require the protasis in the past tense either with the imperfective or perfective aspect (12.31). Also, in negative contexts the irrealis negator *-di- ~-dʑi-* (see §11.2.3) is obligatory (12.32). Using the normal realis form in the negated perfective aspect results in an ungrammaticality (12.33):

(12.31) ***gæ-wts^{h}æ=navzoŋ*** *k^{h}ji~k^{h}ja* *vu* *vɕe-ræ.*
IPFV-be.hot.PST=CF hang.clothes~RED.MLZ:ACT LV:do.1SG AUX.vant.NPST-SENS
Had it been hot, I would have wanted to spread (the corn on the rooftop to dry in the Sun). (UA)

(12.32) *t^{h}ævæ* ***dæ-di-ʑæn=navzoŋ*** *dæ-ŋi-s^{h}i=gæ.*
now **PFV-IRR.NET-come.2=CF** PFV-be.all.right-IFR=MOD
Had you not come now, things would have been all right! (i.e. You came and now things are not all right.) (MEE)

(12.33) **t^{h}ævæ* ***mɛ-ʑæn=navzoŋ*** *dæ-ŋi-s^{h}i=gæ.*
now **ASP.NEG-come.2=CF** PFV-be.all.right-IFR=MOD
Intended meaning: Had you not come now, things would have been all right! (i.e. You came and now things are not all right.) (REJ)

Typological remark

The two types of hypothetical conditionals are commonly not differentiated morphologically cross-linguistically (Thompson, Longacre, and Hwang 2007: 259). Geshiza reflects this typological tendency.

12.3.3. Concessive relationship

Among its repertoire of conditional types, Geshiza has two types of concessive clauses: scalar (§12.3.3.1) and universal (§12.3.3.2).

12.3.3.1. Scalar concessive conditionals

Scalar concessive conditionals, e.g. 'Even if it rains, I will still go', are also known as definite concessives in the literature (e.g. Thompson, Longacre, and Hwang 2007). Scalar concessive clauses in Geshiza are marked with the adverblialiser *=be* that conveys the meaning 'even if, even though, although' (12.34). The used marker is identifiable as the discourse intensifier *=be* 'too' (see §13.5.1), e.g. *ŋa=be* 'I too' that has gained an adverbialising function. In the context of scalar concessive conditionals, I gloss the enclitic as 'even' to enhance readability of the examples. Scalar concessive conditionals require a past tense from the predicate. On the other hand, the main clause appears in the non-past tense.

(12.34) *ŋa, ŋæ=ɲi gæ-rk^{h}a=**be** lŋa=ɲə*
1SG 1=PL.GEN IPFV-be.hard.PST=**even** child=PL

rə-n-tɕæ tɕ^{h}a=t^{h}ə ŋæ=ɲi stɕæpo ŋuə-ræ=je.
PFV.DIR-AB-grow.PST.3 COND=TOP 1=PL.GEN happy COP.3-SENS=MOD
I… Even if life is hard for us, if the children grow up (i.e. without issues), we are happy. (RC)

The scalar concessive clauses are frequently used in the negative, the selection of the negator *mɛ-* indicates their status as realis (12.35; see §11.2.3 concerning the use of negation as a reality status test in Geshiza).

(12.35) [...] *æʑo=ɲu <tsəts^{h}ə> mɛ=nɔ*
[...] maternal.uncle=PL.ERG supporting ASP.NEG=EMPH

*mɛ-ven=**be** ŋa <tsəts^{h}ə> ven.*
ASP.NEG-LV:do.2=**even** 1SG supporting LV:do.2
Even if your father didn't support you at all, I will. (RC; see §2.3.4. *Extended metaphorical use of the kinship terms* for metaphorical use of kinship terms)

12.3.3.2. Universal concessive conditionals

Universal concessive conditionals, also called indefinite concessive conditionals (Thompson, Longacre, and Hwang 2007) and unconditionals (Rawlin 2013)[80], are a type of concessive conditionals involving free choice from an infinite set of protases that can fulfil the apodosis, expressed formally by Haspelmath and König (1998: 565) as (12.36). The structure can be further illustrated in English as follows: '*Whatever he promises you*, don't believe him!'

(12.36) If {*a* or *b* or *c* or *d*...} then *q*

In Geshiza, universal concessive conditionals use a dedicated adverbialiser *=na* (glossing: CONC) with an interrogative pro-forms that also functions as an indefinite pronoun (see §4.5.5). The structure is illustrated in the examples below (12.76-12.39):

(12.37) *oja* *lot^{h}o* *we* *t^{h}o-ʑæ* *də=**na*** *lo-t^{h}o* *we*
INTERJ where house build-NMLZ:P EXV=**CONC** where house

t^{h}o *<fɯɲi>* *d-ə-ɕ^{h}oŋ.*
build side.job PREF-NACT-go.PST.1PL
Wherever houses were built, we went there for side jobs in house building. (RN)

(12.38) *s^{h}æmɲo* *tɕ^{h}u* *sami* *mæ* *lot^{h}o* *ɕoŋ* *jə=**na***
after CONJ PN 3 where go.NPST.1 say.3=**CONC**

ɲu=be *gæ-ɕ^{h}i,* *æ-ŋuə-ræ.*
2SG.ERG=too DIR-take.with.NPST.2SG Q-COP.3-SENS
Afterwards, you take Sami (the author) to wherever he says he (wants) to go. (RC)

(12.39) *ætɕ^{h}ə* *vɕe=**na*** *dæ-k^{h}o-ɣuən=mɔ.*
what want.NPST=**CONC** IMP-give.NPST.ARCH.IMP=MOD
Give him whatever he wants. (RN: folktale)

12.3.4. Causal relationship *=wo*

Geshiza has a major subordinate clause type that expresses causal relationship with the main clause, namely causal clauses. The two clauses are linked with the ergative case enclitic (see §5.3.2) functioning as a causal adverbialiser in the following manner: [cause] *=wo* [result] (12.40, 12.41). In this context, I gloss *=wo* as 'cause'.

[80] The terms are not completely synonymous. Rawlin's unconditionals correspond to König and Haspelmath's alternative and universal concessive conditionals.

(12.40) *o* *ŋk^{h}æva=t^{h}ə* *tɕ^{h}æ=**wo*** *qa* *ɕə=nɔ*
INTERJ snow=TOP be.big.NPST.3=**CAUS** mountain go.INF=TOP.C

mə-sko-vtɕ^{h}æ.
MOD.NEG.AUX.can.NPST-AUX.UNCERT
There is a lot of snow, so it might not be possible to go to the mountains (RC)

(12.41) *t^{h}ævæ=t^{h}ə* *<sents^{h}æntui>* *ws^{h}u=mde* *mɛ-stoŋ=**wo*** *s^{h}o*
now=TOP production.unit three=only ASP.NEG-finish.PST.1PL=**cause** DM

s^{h}o *<sents^{h}æntui>* *æ-vtɕa* *ntɕ^{h}oŋ=mɔ.*
DM production.unit one-CLF.pair have.NPST.1PL=MOD
We have finished three production units. We still have two production units (to finish) I said. (RN: procedure)

Comparative remark
Use of ergative case markers as causal adverbialisers is attested in Gyalrongic languages. In Caodeng Gyalrong, Sun (2003: 502) reports that 'the instrumental-ergative *-kə* expresses a loose logical connection between two clauses.'

12.4. Complement clauses

Following Noonan (2007a:), complementation is defined here as 'the syntactic situation that arises when a notional sentence or predication is an argument of a predicate'. Additionally, I adopt here Dixon's (2010b: 370) three criteria for distinguishing complement clauses: 1. they have internal structure of a clause, at least in terms of core arguments; 2. range of functions available in complement clauses always includes O (P in the terminology of this grammar); 3. they describe a proposition that may be a fact, activity, or state. Against this background, the following discussion focuses on complementiser types (§12.4.1) syntactic roles of complement clauses (§12.4.2); complement clauses and finiteness (§12.4.3); and reported speech (§12.4.4). Since Geshiza purposive clauses with motion verbs (i.e. equivalents for clauses, such as 'I go to the restaurant to eat dinner' do not fulfil the rather strict criteria for complementation established above, yet at the same time resemble complementation, they are discussed under the notion 'complementation strategies' (§12.4.5).

12.4.1. Complementiser types

Geshiza complement clauses are placed before the main clause. Geshiza has various complementiser types for coding the relationship between the clauses, but most analysed complement taking predicates require no overt marking for the complement. In addition to this

zero strategy, the following strategies are attested: dative marking *=ke;* counterfactual marking *-go;* and potential marking *-ɣa.* All complementisers are postposed to the end of the complement clause containing either a finite verb or an infinitive (see §4.3.6). Examples of complement taking verbs with their complementisers are shown in Table 12.2:

Table 12.2. Examples of complement taking predicates in Geshiza

Marking	Finiteness	Pred. type	Verb	Gloss
zero	Non-finite	Stative	*ʤʐɔ* (V2a)	to be capable, competent
	Non-finite		*ɾka* (V1a)	to be hard, difficult
	Non-finite		*ɾkʰæ* (V2a)	to be good at, skilful
	Non-finite		*qʰi* (V2a)	to be ferocious, good, bad
	Non-finite		*tɕʰæ* (V1b)	to be free, have time
	Non-finite	Modal	*mə-grə* (1b)	to be unable
	Non-finite		*mɲə* (2b)	can, be able
	Non-finite		*mə-ske* (12b)	should not
	Non-finite		*sko* (V1b)	to manage, can
	Non-finite		*snə* (V3b)	to dare
	Non-finite		*tɕʰa* (2b)	can, be able
	Finite		*vɕe* (1b)	must, need
	Non-finite	Various	*bre* (V1b)	to be time for sth
	Non-finite		*ndɔdɔ* (2b)	to take care
	Non-finite		*stʰæ* (V3b)	to stop
	Non-finite	Speech and	*lmə* (V4)	to forget
	Finite	cognition	*jə* (V2b)	to say
	Finite		*ntsʰə* (V3b)	to think
	Finite		*v-se* (V4)	to know
-go	Finite		*wrə* (V3b)	to think (mistakenly)
-ɣa	Finite	Various	*stɕær* (V2b)	to be afraid
=ke	Finite		*vsəu* (V4)	to resemble, seem

Semantics of complement taking verbs

Most languages have a restricted set of predicates that take complements (Dixon 2010b: 370). Also, complement-taking verbs generally fall into three major classes: modality verbs (to want); manipulation verbs (e.g. to make); and perception-cognition-utterance verbs (e.g. to see) (Givón 2001b: 40). From a semantic viewpoint, complement taking predicates in Geshiza include stative verbs (*ɾka* 'to be difficult', *ɾkʰæ* 'to be good at'); modal verbs (*mɲə* 'can', *vɕe* 'must, need'); and cognition-utterance verbs (*lmə* 'to forget', *ntsʰə* 'to think').

Complementiser types

The complementiser types are discussed in more detail below:

1. No overt complementiser

The strategy of having no overt complementiser with an infinitive as the complement overwhelmingly dominates in Geshiza (12.42, 12.43). Only a few verbs have their dedicated complementisers, while the lack of an overt complementiser constitutes the default strategy in Geshiza.

(12.42) *ŋgə* *dæ-stəu=gæ.*
eat.INF PFV-finish.PFV.1SG=MOD
I have finished eating. (RN: folktale)

(12.43) *pʰiəutsə* *ɕua* *dæ-ʤ̥ɔ-sʰi.*
money search.INF PFV.capable.3-IFR
He was capable of earning money (well). (MEE)

2. -go *as complementiser*

The verb *wrə* (V3b) 'to think, imagine (mistakenly)' requires the counterfactual complementiser *-go* (glossing: CFC), as shown in example (12.44). No other verbs with similar behaviour were attested. The complementiser indicates that the state or activity described by the complement clause is not real. The complementiser suffix is attested only in this context (no connection argued with *-go* the engagement suffix of non-shared information discussed in §9.2.6, although a historical connection cannot be denied either), which makes it a dedicated complementiser of a single verb.

(12.44) *tɕʰu* *ŋæ=ntsʰe* *æpa* *lmo=ræ* *sʰo* *rkəmæ* *ŋuə-**go***
CONJ 1=ASS.GEN father 3.ERG=LNK DM thief COP.3-**CFC**

dæ-wrə=ræ […]
PFV-think.mistakenly.3=LNK […]
So my father thought that it (the source of the sound at night) was a thief (whereas in fact, it was a leopard). (RN: family history)

The complementiser is used when describing states or actions in dreams, since these are seen as counterfactual in the sense of not actually taking place in our normal waking consciousness (12.45, following page):

(12.45) *o* *pʰe* *æ-ŋe* *gæ-ntɕæroŋ-**go**=ɲə*
INTERJ other one-CLF.place IPFV-enjoy.oneself.NPST.1-**CFC**=PL

g-ə-wru-ræ.
PREF-NACT-think.mistakenly.1-SENS
I dream (habitually) of having a fun time in another place. (RN: description of a dream)

3. -ɣa *as complementiser:*
The potential suffix *-ɣa* (glossing: POT) serves as a complementiser only with the verb *stɕær* (V2b) 'to be afraid' (12.46) in the source materials. The use of the complementiser indicates that the speaker is afraid of a potential outcome or an outcome represented as such, as in (12.46) that is a joke (see also §10.2.3 for the related apprehensive imperative):

(12.46) *ŋa* *tɕʰu* *wərja* *gəndo* *mi-ŋgu=mde.* *wərja*
1SG CONJ chicken strongly NEG-eat.1SG=MOD chicken

*tjan-**ɣa*** *stɕoŋ-ræ.*
become.NPST.1-**POT** afraid.NPST.1-SENS
I don't eat a lot of chicken. I am afraid that I will turn into a chicken. (RC: chronicle)

It is worth noting that if the element of potentiality is absent and no outcome is discussed, the verb *stɕær* takes a non-finite complement with no overt complementiser (12.47):

(12.47) *gəɕʰo* *a̱rira* *ŋa=tʰə* *stɕoŋ=bɔ.*
evening walk.INF 1=TOP be.afraid.NPST.1=MOD
I am afraid of walking in the evenings. (MEE)

In its argument structure, *stɕær* otherwise marks the extension (E) argument that codes the source of fear with the dative case, not with *-ɣa* (see §7.3.2 for the extended intransitive clause). Also, in all attested instances, the potential suffix *-ɣa* attaches to nominalised verbs, not to finite verbs (see §8.6.3). Consequently, the role of *-ɣa* as a complementiser in Geshiza is highly unique in the light of present data.

4. =ke *as complementiser*
In the source materials, only the verb *vsəu* (V4) 'to resemble, seem' is attested using the dative case enclitic *=ke* (see §5.3.4) as a complementiser (12.48, following page):

(12.48) *ɲi=tʰə* *ŋɛ* *æmæ* *ŋuən=**ke*** *vsəu=bɔ.*
2SG=TOP 1SG.GEN mother COP.2=**DAT** seem.NPST.3=MOD
Looks like you are my mother! (RN: folktale)

12.4.2. Syntactic roles of complement clauses

Languages differ in which core functions a complement clause may serve. As mentioned in the introduction, languages with complement clauses always include the role of P (Dixon's 2010b: 370). In Geshiza, complement clauses take the syntactic roles of S and P, A being absent in the source materials. Each core role is briefly illustrated below with verb pairs:

S

The intransitive verb *bre* (V1b) 'to be time for something' illustrates how the S slot may be occupied by both noun phrases (12.49) and complement clauses (12.50):

(12.49) ***læsær*** *zə-bre-ræ.*
New.Year PROSP-be.time-SENS
The New Year is approaching. (MEE)

(12.50) ***bræwə*** ***kʰuæ*** *gæ-bre-sʰi.*
buckwheat **harvest.INF** IPFV-be.time-IFR
The time has arrived to harvest the buckwheat. (MEE)

P

As the transitive verb *v-se* (V4) 'to know' shows, the P slot takes both noun phrases (12.51) and complement clauses (12.52):

(12.51) ***məka*** *mə-se=jɔ.*
shame NEG-know.NPST.2SG=Q
Don't you 'know' any shame? (i.e. You are acting shamelessly.) (MEE)

(12.52) *ækə-stæmba* *lməu* ***v-kʰroŋ*** *v-se-mə-ræ.*
PN-PN 3.ERG **INV-catch.NPST.1** INV-know.NPST.3-EP-SENS
A khu ston pa knows that they will catch him. (RN: folktale; see §2.7.4. *Major story types* for folklore figure)

Some predicates in which the complement clause takes a P-like role are nevertheless morphologically intransitive and they belong to class 2b, as in example (12.53). As discussed in §7.3.3, these verbs are called semi-transitive in this grammar.

(12.53) *rts^{h}o* *mts^{h}ɔ* *æ-mɲin.*
dirt sieve.INF Q-can.2
Do you know how to sieve dirt? (RN: chronicle)

Preservation of core argument structure in complement clauses
The core argument structure of the predicate in the complement clause is preserved. To illustrate, in example (12.54) the verb *v-k^{h}o* (V4) 'to give' retains its core argument P *ŋk^{h}uma* 'key':

(12.54) *ŋk^{h}uma* *k^{h}o* *dæ-lmu-s^{h}i.*
key give.INF pfv-forget.1SG-IFR
I forgot to give (you the key). (MEE)

12.4.3. Complement clauses and finiteness

In terms of finiteness, complement clauses are divided into finite (12.55) and non-finite ones (12.56). Of these, the non-finite type dominates in Geshiza.

(12.55) Finite complement clause:
rŋæmtɕ^{h}æ=ke=ræ *xaræ* *mtɕ^{h}ærmi* *n-ə-vzoŋ*
festival.name=DAT=LNK CONJ butter.lamp PREF-NACT-light.1PL

vɕe-ræ.
need.NPST-SENS
We need to light butter lamps on *tsong kha pa Memorial Festival* (see §2.4.1 for more on the festival)

(12.56) Non-finite complement clause:
ŋa=læ *ɕua* *mə-tɕ^{h}oŋ* *tɕ^{h}u* [...]
1=FOC search.INF MOD.NEG-can.NPST.1 CONJ [...]
(Since I am already retired), I am unable to earn (money for the household), so... (RC)

As a tendency, cognition and utterance verbs require finite complement clauses, intransitive and modal verbs requiring non-finite complement clauses. Exception nevertheless exist, as illustrated in (12.54) with *vɕe* (V1b) 'must, to need' that despite being a modal verb, nevertheless requires a finite complement clause.

12.4.4. Reported speech

Reported speech plays a highly important role in the Geshiza society, to the extent that it is present in virtually every longer everyday conversation. In reported speech, speakers aim to faithfully reproduce the words pronounced, at least to the extent that this is feasible due to

constraints, such as memory. The complement clause comprising reported speech is typically embedded between the main clauses subject and predicate: [subject [reported clause] predicate], as illustrated in (12.57):

(12.57) *æmbə* *æmɲi=wo* *'<ju>-goŋ* *gæ-n-tɕæ-s^{h}i=mɔ'* *jə.*
PN grandfather=ERG oil-price IPFV-AB-be.big.PST.3-IFR=MOD say
Elderly man *æmbə* says: 'gasoline price is increasing!' (RC)

In addition to quoting others, the Geshiza often quote themselves in conversation (12.58):

(12.58) *tɕ^{h}u* *lala* *lmæ* *t^{h}i* *ɲo* *rə-lxua* *'va-dzi=ɲə*
CONJ mat.aunt 3 DEM.GEN after PFV.DIR-appear.3 pig-food=PL

tsəu' *jə* *tɕ^{h}u* *'ŋa* *dʑan=ræ* *mə-ɕe'*
slice.NPST.1SG say.3 CONJ 1SG EXV.1=LNK MOD.NEG-need.NPST

joŋ=ræ.
say.1=LNK
After that, appeared and said: 'I will slice the pig food.' I said: 'I am (at home), so there is no need.' (RC)

Verbs of speech and cognition occur as main clause predicates in reported speech. To illustrate the latter, the verb *nts^{h}ə* (V3b) 'to think' occurs fairly frequently in reported speech. In other words, reported speech in Geshiza also allows quoting one's thoughts. This happens frequently in folktales to facilitate narration, e.g. by showing the motives behind a character's behaviour (12.59):

(12.59) *s↓* *'e* *vdzi=t^{h}ə* *ŋgu'* *g-ə-nts^{h}ə-mə-ræ.*
PARAL DEM man=TOP eat.1SG PREF-NACT-think.NPST.3-EP-SENS
It (the yeti-like *lubji* monster) thought: 'I will eat that man' (RN: folktale; see §2.7.2 for monsters in Geshiza ontology)

Question of semi-direct speech

Semi-direct speech (Aikhenvald 2008), also known as 'hybrid indirect speech' (Jacques et al. 2015), is reported from Gyalrongic languages, e.g. Japhug (Jacques 2016a) and Stau (Jacques et al. 2015). Whether it also exists in Geshiza will be subject to further investigation. Since reported speech is challenging and unreliable to elicit, a larger corpus is needed to settle the issue with certainty.

12.4.5. Purposive clauses as a complementation strategy

Geshiza motion verbs, e.g. *ɕə* (V2b) 'to go' form purposive clauses with infinitives. Since the complement-like infinitive is not a core argument, such purposive clauses fail to fulfil the strict criteria of complementation established at the beginning of this section. Instead, following Dixon (2010b), this is called a complementation strategy, illustrated in (12.60):

(12.60) *sʰoŋzæ* *stærmu* *və-me* *tʰo* *vo* *tʰi* *ɕoŋ.*
TOPN wedding LV:do.NMLZ:A DEM.LOC alcohol drink.INF go.NPST.1
I will go to *sʰoŋzæ* to have a drink at the place of wedding. (RC; see 2.4.2. concerning Geshiza weddings)

12.5. Relative clauses

Relative clauses constitute the third major subtype of subordinate clauses in Geshiza. They are treated in this section where the discussion consists of an introduction (§12.5.1); head noun placement (§12.5.2); and accessibility hierarchy and constraints in relativisation (§12.5.3). As in many other Trans-Himalayan languages, relative clauses are built with nominalisations in Geshiza. It would consequently also be justified to treat the two as a unified topic. In order to constantly follow the structure of this functional-typological grammar, however, nominalisation is discussed in the morphological context and relativization in complex clauses.

12.5.1. Introduction

Unlike in many standard average European languages, Geshiza has no relative pronouns, such as *joka* (Finnish), *que* (French), *который* (Russian). Relative clauses are primarily formed with two nominalisers (see §6.2.3.1) in Geshiza: *-me* (non-past) tense and *-sʰi* (past tense). The convergence of a multitude of functions in nominalisation is called 'Standard Sino-Tibetan Nominalisation' (Bickel 1999).

The use of *-me* and *-sʰi* is narrowed to S/A functions in lexical nominalisation (see §6.2.3.1), as can be seen with examples nominalisations from the intransitive verb *ŋo* (V2b) 'to be sick' (12.61) and from the transitive verb *rtɕʰæ* (V3a) 'to bite (12.62). Also, in lexical nominalisation, *-me* and *-sʰi* must always be postposed to the infinitive devoid of argument indexation.

(12.61) *ŋo-me;* *gæ-ŋo-sʰi*
be.sick-NMLZ:S IPFV-be.sick-NMLZ:S
a sick person a person who has gotten sick

(12.62) *rtɕʰæ-me* *dæ-rtɕæ-sʰi*
bite.NPST.3-NMLZ:A PFV-bite.PST.3-NMLZ:A
biter (e.g. a dog that bites) (a dog) that bit

Against the aforementioned, the use of *-me* and *-sʰi* in relativisation differs in two major respects. First, they show a wider range of functions, such as relativisation of P in (12.63):

(12.63) *ætɕʰəroro* *lŋa=ɲu* *ləu* ***smær-me=tʰə*** *gæ-ru.*
whatever child=PL.ERG which **like-NMLZ:P=TOP** PFV-buy.1SG
I bought everything that our children like. (RN: chronicle)

Second, as discussed in §4.3.3, most Geshiza verbs manifest argument indexation. Relativisations formed with *-me* and *-sʰi* are compatible with argument indexation. To illustrate, in (12.64), *-me* attaches to a finite verb form indexing the first person singular:

(12.64) *ŋa=be* ***səu-me*** *æ-ɣi* *dʑi=me,*
1SG=too **know.NPST.1SG-NMLZ:P** one-CLF.person EXV.3=MOD

ndæmdo *lala.*
PN mat.aunt
There is a person that I too know, a lady from Dandong. (RC)

12.5.2. Head noun placement

To recapitulate from the context of noun phrase syntax and the placement of its constituents (§5.1), relative modifiers have two acceptable locations. They may be placed either before (12.65) or after the nominal head (12.66). Of these, placement after the head dominates in the source materials (16.67):

(12.65) *e* *dæ-ʑe-sʰi* *sme=tʰə*
DEM PFV-come.3-IFR woman=TOP
that woman who came (MEE)

(12.66) *e* *sme* *dæ-ʑe-sʰi=tʰə*
DEM woman PFV-come.3-IFR=TOP
that woman who came (MEE)

(12.67) *rgævæ* *gæ-jəu-sʰi* *æ-lə* *də-ræ.*
stone IPFV-grow.3-NMLZ one-CLF.INDEF EXV-SENS
There is a stone that grows. (RC: personal history)

In practice, however, headless relative clauses dominate in Geshiza (12.68, 12.69):

(12.68) *ŋa* *ɲi=ke* *dæ-joŋ-s^{h}i=t^{h}ə* *lmi-ɣa=bɔ.*
1SG 2SG=DAT PFV-say.3-NMLZ:P=TOP forget.2SG-APPR=MOD
Don't forget what I told you. (UA: Weixin message)

(12.69) *e* *mbrə-ræ* *xaræ* *ləu* *dæ-v-ko-s^{h}i=t^{h}ə*
DEM cereals=LNK CONJ which PFV-INV-give.PST.3-NMLZ=TOP

æqɛ *və-jæɣuə* *rə-mbe=ræ* […]
all down-rooftop DIR-carry.3=LNK […]
Those cereals and whatever (other things) they had given they carried to the lower rooftop... (RN: ethnographic description/personal story)

12.5.3. Accessibility hierarchy in relativisation

Languages vary in respect of what can be relativised. As a pioneering work, Keenan and Comrie (1977) postulate an accessibility hierarchy for relativisation of NP positions, shown in (12.70):

(12.70) subject > direct object > indirect object > major oblique case > genitive > object of comparison

Of these, all except object of comparison can be identified in Geshiza. Due to the opacity of the concept, I do not use the term 'indirect object' in this grammar. The manifestation of the hierarchy in Geshiza is illustrated below in the order of S (12.71); A (12.72); P (12.73); oblique (12.74); genitive (12.75):

(12.71) S:
vo *gæ-v-ti-s^{h}i* *dʑi.*
alcohol IPFV-INV-drink.PST.3-NMLZ exv.3
There were (people) who drunk alcohol.

(12.72) A:
tɕ^{h}int^{h}ie *dæ-v-læ-s^{h}i=t^{h}ə=ræ* *lmo=t^{h}ə* *ŋui* *xontɕyn=je*
invitation PFV-INV-send.3-NMLZ=TOP 3.ERG=TOP before Red.Army

<liesəmo> *<liesəpe>* *æ-lə* *dæ-vzə-s^{h}i.*
Martyr's.tomb Martyrs'.memorial.stela one-CLF.INDEF PFV-make.3-IFR
He who had sent the invitation letters had made a grave (mistaken and subsequently self-repaired), a memorial stela for the martyrs of the Red Army. (RC: personal history)

(12.73) P:

tʰo	*o*	*zdi=ɲə*	*dæ-v-kuæ-sʰi=tʰə*
DEM.LOC	INTERJ	wall=PL	PFV-INV-cut.PST.3-NMLZ=TOP

dæ-to=ræ	[…]
PFV-build.PST.1=LNK	[…]

In that place, I (re)built the fences that (the cow) had broken… (RC)

(12.74) Oblique:

ɲi	*gæ-rgən-sʰi=tʰə*	*ŋuə=jɔ.*	*ɲi*	*gæ-rgən-sʰi*
2SG	IPFV-sleep.2-NMLZ=TOP	COP.3=Q	2SG	IPFV-sleep.2-NMLZ

æ-kʰue	*ŋuə=jɔ.*
one-CLF.room	COP.3=Q

Is that where you sleep? Is that the room where you sleep? (UA: WeChat message)

(12.75) Genitive:

vzdi=ɲə=tʰə	*sʰo*	*lmæ=ɲə*	*dæ-ɕʰə-sʰi=ɲi*	*dzi*
man=PL=TOP	DM	3=PL	PFV-go.PST-IFR=PL.GEN	food

stema=ɲə	*æ-ntsʰæ*	*dæ-mtsæ=ræ*	[…]
left.over=PL	one-CLF.little.bit	PFV-heat.PST.3=LNK	[...]

The men heated a bit the left overs of those who had left (the party)... (RN: chronicle)

12.6. Summary

This chapter discussed Geshiza complex clauses with the focus on coordination, and three kinds of subordinate clauses: adverbial, complement, and relative. A wide range of suffixes, enclitics, and independent words are employed for building complex clauses. Adverbial and complement clauses precede the main clause, like in many languages of the region. On the other hand, relative clauses either precede or follow their nominal heads. Finally, the formation of relative clauses is directly connected to nominalisation in Geshiza, a feature the language shares with many other Trans-Himalayan languages.

CHAPTER THIRTEEN
Reference tracking and information structure

This chapter offers an overview of reference tracking and information structure in Geshiza. The overall picture presented herein scratches the surface of the intriguing topics that are discussed. Especially the field of information structure in Geshiza requires further investigation with considerably more natural discourse recordings serving as the source materials. While the discussed topics have started to garner wider attention, only a limited amount of truly typological previous research exists, save in spatial deixis. For this reason, future work may revise or even reformulate parts of the description.

The chapter is divided into reference tracking (§13.1); deixis (§13.2); topic (§13.3); focus (§13.4); definiteness (§13.5); discourse intensifiers (§13.6); and right dislocation (§13.7). A summary is appended at the end of the chapter (§13.8).

13.1. Reference tracking

This sections of introduces the principal characteristics of reference tracking in Geshiza. A brief introduction illustrating general characteristics (§13.1.1) is followed by generic person (§13.1.2) and anaphoric reference (§13.1.3); and cataphoric reference (§13.1.4).

13.1.1. General characteristics

Reference tracking refers to devices used for indicating whether reference is made to the same or different participant (Comrie 1999: 335). Main referential strategies of reference tracking in Geshiza are ellipsis and agreement. The referential devices comprise argument indexation morphemes and pronouns. Ellipsis of arguments characterises discourse in Geshiza where overt nominal arguments are often absent. In this, Geshiza resembles many languages of East and South-East Asia, such as Japanese (see Nariyama 2003 for a detailed treatment). To illustrate, in (13.1, following page), after the subject *bəʑə* ‘son’ has been introduced to the stage, it is subject to ellipsis. The absence of the subject indicates continuity in the subject. In other words, as long as no other subject is introduced, the listener interprets third person forms pertaining to the introduced subject *bəʑə*.

(13.1) *mægə* *bəʑə* *braŋgu* *dæ-ɕʰə.* *<ʈʂʰetsə>* *gæ-rdʑu-sʰi*
yesterday son TOPN PFV-go.PST.3 car IPFV-drive.3-NMLZ

ŋuə. *braŋgu* *dæ-ɕʰə* *ɲo=væmɲi=ræ* *<tonɕi>* *rə~ræ*
COP.3 TOPN PFV-go after=CONJ=LNK thing buy~RED.NMLZ:ACT

dæ-və-sʰi.
PFV-LV:do.3-IFR
(My) son went to Danba County Town yesterday. He drove the car (there). After going to the County Town, he did (some) shopping. (RN: report)

As an example agreement, (13.2) shows that despite lacking arguments, the verb form leaves no doubt that both clauses share the same subject:

(13.2) *wne=tʰə* *mdzo* *dæ-ŋgoŋ.* *vo=ɲə* *dæ-tan.*
two=TOP lunch PFV-eat.1PL alcohol=PL PFV-drink.PST.1PL
We two had lunch and drunk alcohol. (RN: ethnographic description/chronicle)

Typological remark
In a typological study, Foley and Van Valin (1984) divide the reference tracking systems encountered into four basic types: 1. switch function; 2. switch reference; 3. gender; 4. pragmatic inference. Of these, Geshiza falls into category 4., which the authors report to dominate in East and Southeast Asia.

13.1.2. Generic person

As an opposite of individuation, generic person refers to a set of people in general. Geshiza grammar has no dedicated means for marking generic reference found in some Gyalrongic languages, e.g. Tshobdun (Sun 2014b). In Geshiza, the second person indexation is used for this purpose (13.3; 13.4):

(13.3) *mɲamɲa* *bɔ* *sæmnoŋ* ***dæ-lɛ*** *tɕʰa=tʰə* *'dʑo~dʑo*
badly like thinking **PFV-LV.release.2SG** COND=TOP RED.ADJZ~lot

dəu' ***dæ-jin=be*** *ɕʰəsʰo* *gɔ-jær* *mi-tje.*
LV:do.1SG **PFV-say.2=even** DM ADJZ-good NEG-become.NPST.3
If you think in a bad way, even if you say, 'I do a lot,' it will not lead to good results. (RN: folktale)

(13.4) *sʰi* *dæ-kuæ-sʰi* *tʰo=ræ* *ozəva* *ozəva* *ozəva*
tree PFV-cut.PST-NMLS DEM.LOC=LNK type.of.spell type.of.spell type.of.spell

dæ-jin *tɕʰa=ræ* ***ꭤven.***
PFV-say.2 COND=LNK **heal.2**
(When you have become sick because of a *gnyan* whom you have angered by accidentally felling a holy tree,) if you say *o zəva, o zəva, o zəva* at the place where the tree has been cut, you will get healed. (MEE: interview; see §7.2.1. *Other divinities of folk religion* for a brief description concerning the *gnyan* spirits and holy trees)

13.1.3. Anaphoric reference

Anaphora refers back to its antecedent. The repertoire of pronouns in Geshiza includes a dedicated anaphoric pronoun *ɲjæ* (see §4.5.4) for intercausal coreference. The anaphoric pronoun appears frequently in narratives, especially folktales, where keeping track of the introduced actors is crucial for comprehension. In (13.5), the use of *ɲjæ* indicates that the love of the newly introduced actor is directed towards the first introduced actor.

(13.5) ***mətustɕe*** ***jə-me*** ***æ-yi*** *dæ-dʑi-sʰi* *ŋuə-ræ-jə.*
PN **say-NMLZ:P** **one-CLF.person** PFV-EXV.3-NMLZ COP.3-SENS-REP

tʰævæ *e=tʰə* *ŋuə.* ***tʰi=je*** *rjəu=wə=ræ* *kʰɔ~kʰɔ~kʰɔ*
now DEM=TOP COP.3 **DEM.GEN**=GEN wife=ERG=LNK INTERJ~RED~RED

ꭤarju ***ɲjæ=ke=zɔ*** *gæ-rga* *bɔ* *g-ə-v-dæ-mə-ræ.*
greatly **ANAPH**=DAT=ONLY IPFV-love.3 like PREF-NACT-INV-do.3-EP-SENS
There was a person called *mətustɕe*. Now it is (like) this: His wife (habitually) pretended that she greatly loved him. (RN: folktale; see *Appendix IV: List of prominent figures* for *mətustɕe* in Geshiza folklore)

13.1.4. Cataphoric reference

In cataphoric reference, a deictic element refers to an entity that is introduced later in discourse, which makes it the functional opposite of anaphoric reference. In Geshiza, the demonstrative pronoun *xə* (see §4.5.2) indicates cataphoric reference. As illustrated in (13.6, following page), cataphoric reference is common in storytelling in which the narrator first sketches an event (e.g. *The protagonist did that*) followed by a more detailed description of its content (e.g. *The protagonist fought his adversary*):

(13.6)

sʰæmɲo=ræ	*xaræ*	*lməu=wo*	***xə***	*dæ-v-dæ=ræ*	*ækə-stæmba*
later=LNK	CONJ	3.ERG=ERG	**DEM**	PFV-INV-do.3=LNK	PN-PN

lmæ	*ɲo=ræ*	*xaræ*	*ɣæ-zde*
3	after=LNK	CONJ	right.bank.of.diagonal.side.river

dæ-ɕʰə-sʰə-mə-ræ-jə.
PFV-go.PST.3-IFR-EP-SENS-REP
Later, he did this. Afterwards, *a khu ston pa* went to the other side of the river. (RN: folktale; see §2.7.4. *Major story types* for folklore figure)

As a particular subtype of cataphoric reference, the demonstrative pronoun *xə* is also used when the speaker is about to recall a word or piece of information that is 'at the tip of his or her tongue.' In (13.7) the speaker is trying to identify the birth year of his grandson the in Tibetan Zodiac consisting of twelve animal signs, finally succeeding in the task:

(13.7)

bəvi	*tɕʰ*	***xə***	*ŋuə-ræ.*	*s↓*	*a̱loŋ-lə,*	*oja*	*a̱loŋ-lə*
this.year	CONJ	**DEM**	COP.3-SENS	PARAL	Ox-year	INTERJ	Ox-year

ŋuə-ræ.	*a̱loŋ-lə*	*ŋuə-ræ*	*tɕʰu*	*bəvi*	*wtɕʰəu-ko*
COP.3-SENS	Ox- year	COP.3-SENS	CONJ	this.year	six-CLF.year

tje-ræ .
become.NPST.3-SENS
This year… He (my grandson) is that. Ox, yeah, he is an Ox (zodiac sign). He is an Ox, so he will turn six this year. (RN: introduction of a person; see §2.4.1 for the Geshiza version of the Tibetan zodiac used for identifying peoples' birth years.)

13.2. Deixis and coding of space

This section discusses deixis, namely expressions that refer to an 'indexical field' (Zeigfeld) with the origo anchored by the speaker, place or utterance, and time of utterance (Bühler 1934). In other words, deictictical expressions receive their interpretation from their extralinguistic contexts. The section is divided into spatial deixis (§13.2.1) and temporal deixis (§13.2.2). In the context of spatial deixis, I also address other relevant issues concerning coding of space.

13.2.1. Spatial deixis

Geshiza exhibits an extensive system of paradigmatic topographic deixis. Topographic deixis is a pervasive feature of Trans-Himalayan languages, present in every major branch (Post

forthcoming). In Geshiza, topographic deixis cross-cuts several word classes, being present in locational nouns, adverbs, and verbal orientational prefixes. The demonstrative pronouns (see §4.5.2) in contrast lacks spatial distinctions between proximate and distant deixis (including 'here' and 'there') and do not participate in expressing topographic deixis. This gap is supplement by frequently-used locational nouns and adverbs that encode both proximal, proximal-medial, and distant locations. For the sake of simplicity, the proximal medial category is referred to as medial. The core of the system is listed in Tables 13.1 and 13.2:

Table 13.1. Locational nouns expressing spatial deixis in Geshiza

Proximal	Medial	Distal	Gloss
rə-dze	*jolva*	*æru*	mountain side, up
næ-dze	*jovə*	*æɲi*	river side, down
gæ-dze	*æsk^{h}o*	*æk^{h}o*	upriver side
wə-dze	*æzyæ*	*æɣæ*	downriver side

Table 13.2. Adverbs expressing spatial deixis in Geshiza

Directional adverbs	Range adverbs	Verbal prefixes[81]	Gloss
rə-ro	*rə-ŋk^{h}uæ*	*rə-*	mountain side, up
næ-ro	*næ-ŋk^{h}uæ*	*næ-*	river side, down
gæ-ro	*gæ-ŋk^{h}uæ*	*gæ-*	upriver side
wə-ro	*wə-ŋk^{h}uæ*	*wə-*	downriver side

Verbal orientational prefixes

Orientational prefixes attaching to verbs occur most frequently of all means for indicating topographic deixis in Geshiza. Such prefixes are extensively discussed in §8.2. To summarise here, the use of the prefixes is based on a biaxial model. prefixes *gæ-* and *wə-* indicate movement towards upriver and downriver, respectively (13.8). In turn, prefixes *rə-* and *næ-* indicate movement away and towards the river, respectively (13.9). Since land generally rises when one moves away from the river towards the mountains, *rə-* and *næ-* have evolved additional meanings of 'upwards' and 'downwards', respectively.

(13.8) *q^{h}æs^{h}i* *gædə* ***wə**-mbəu = bɔ.*
tomorrow morning **DIR**-carry.1SG=MOD
I will carry the cake (downriver to Danba County Town) tomorrow morning. (RC)

[81] The verbal prefixes (see §8.2) are included in the table for the sake of comparison. As can be seen, both the listed spatial adverbs and verbal prefixes operate on the basis of the same topographic parameters.

(13.9) *æqɛ* *jæɣwə* ***rə-van.***
all rooftop **DIR**-go.SUPPL.1
All (of us) go the rooftop. (ethnographic description/personal history)

Locational nouns

Locational nouns are frequently used in the contexts of movement and existence. They branch into three categories: proximal, medial, and distal. Proximal locational nouns refer to the immediate area surrounding the speaker, spanning several meters. This range glides into that of the medial proximate nouns with some overlap. The proximal locational nouns are typically used inside the house complex, where all distances are short and many daily activities take place. To illustrate, in (13.10), the speaker tells the author to put down a generator they are carrying together against the river side wall of the room. Since she has no free hands and the locative form *xo* of the demonstrative pronoun *xə* fails to provide precise spatial information in Geshiza, the locational noun thus provides a convenient way to encode the exact space where the action must take place:

(13.10) Static proximal:
xo ***næ-dze*** *rə-sti.*
DEM.LOC **DIR-proximate.riverside.LOC** IMP-put.NPST.2SG
Put (the generator) down there, on the river side (of the room)! (UA)

Medial proximate nouns extend in range up to tens and on occasion even hundreds of meters, a range that is easily reachable by foot (13.11):

(13.11) Static medial:
jovə=tɕe *zdi* *dæ-v-kuæ-s^{h}i.*
medial.riverside.LOC=INSTR wall PFV-INV-cut.PST.3-IFR
It (the cow) broke a wall on the river side (some distance away). (RC)

The distal series refers to locations that are several hundreds of meters or even kilometres away from the deictic centre, for instance, a speaker who lives in Geshiza Valley and refers to a distant location or house on the mountain slope (13.12, following page). A fourth grade of distance can be formed from the static distal locational nouns by reduplication and the addition of the enclitic *=nɔ* functioning as a contrastive topic and emphasis marker (see §13.3.2): *æ-ru* 'mountain side (distal)', *æru=nɔ* 'far and high up mountain side (extra-distal)'.

(13.12) Static distal:

æru	*tɕʰa*	*ndzoŋ*	*dæ-vɕʰe-ræ,*	*keru.*
distal.mountainside.LOC	on	stay.3	PFV-AUX.must.PST=LNK	TOPN

We had to stay up there, in *keru.* (RC)

Locational adverbs

Like locational nouns, locational adverbs are also commonly used for movement and existence. They comprise two major types: adverbs of direction and range. Adverbs of direction are one-dimensional, merely indicating direction of movement (13.13):

(13.13) Directional:

rə-ro	*rə-ɕə=læ*	*mə-tɕʰa-ræ.*
DIR-ADV	DIR-go.INF=FOC	MOD.NEG-AUX.can.NPST.3-SENS

It (the cow) cannot go up (because of a built barrier). (RC)

In contrast, adverbs of range are two-directional and indicate space from the deictic centre into a given direction. To illustrate, in (13.14), the adverb of range *gæ-ŋkʰuæ* marks that all land upriver from the deictic centre, namely an engraved rock, belonged to Balang Village in the past:

(13.14) Range:

ə	*e*	*tʰi=je*	***gæ-ŋkʰuæ=tʰə~tʰə***	*ɲəma*	*a̱na=tʰə*
HES	DEM	DEM.GEN=GEN	**DIR-ADV**=TOP~RED	past	past=TOP

bəra-vɛ	*sʰætɕa*	*dæ-ŋuə-sʰi*	*ŋuə-ræ.*
TOPN-NAT.GEN	place	PFV-COP.3-NMLZ	COP.3-SENS

All land upriver from the engraved rock belonged to Balang in the distant past. lit. Upriver from that (engraving on the rock) was Balangers' land in the distant past. (RN: local history)

The adverbs of range *rə-ŋkʰuæ* and *næ-ŋkʰuæ* also have temporal use. As in (13.15), *rə-ŋkʰuæ* indicates the temporal range onwards from the deictic centre, namely the month of May. As discussed in §8.2.2. *Conventional prefixation and arrow of time*, the arrow of time in Geshiza points upwards, so that future can be coded with the upward orientational prefix *rə-*.

(13.15)

<wu-jye>	***rə-ŋkʰuæ=kʰa***	*ntsʰælma*	*skəu*	*tɔ.*
five-month	**DIR-ADV**=about	dream	more	become.true.NPST

From approximately May onwards, dreams (that we see while sleeping) tend to become true (in real life). (RN: ethnographic description)

Multiple marking of spatial deixis

Spatial deixis may be marked on multiple constituents simultaneously in Geshiza. In practice, in such scenarios, the deictic markers must be harmonised, i.e. be from the same horizontal lines of Tables 13.1 and 13.2. As in (13.16), when an upriver directional adverb is used, the verbal prefix must also encode the upriver orientation, if any is used:

(13.16) *rji* ***gæ-ro*** ***gæ-ɾje*** [...] ***wə-ro*** ***wə-ɾje=ke*** [...]
horse **DIR-ADV** **DIR-go.3** [...] **DIR-ADV** **DIR-go.3=SEQ** [...]
The horse goes towards the upriver direction... and towards the downriver direction...
(RN: folktale)

Riverine topography

The topographic system of Geshiza also takes into account the river system in formation of non-deictic locational nouns with specific semantics. Locations vis-à-vis the river are important to encode, since the Geshiza environment is dominated by a river valley surrounded by mountains (see §2.2.1). Geshiza has deictic locational nouns expressing river sides, the forms of which are given in (13.17) :

(13.17) *bjæ-zde* 'right side of river looking towards downriver'
ɣæ-zde or *kʰuə-zde* 'left side of river looking towards downriver'
skʰo-zde 'side of side river on the downriver side of main river'
zɣæ-zde 'side of side river on the upriver side of main river'

Figure 13.1 on the following page offers a graphical illustration. Grey space in the figure corresponds to mountainous areas and the white space to river valleys. The figure is a schematic rendition, rather than an exact representation of the physical environment. Looking towards downriver, the right side of the river is referred to as *bjæ-zde* and the left side as *ɣæ-zde* or *kʰuə-zde*, only the latter used in Figure 13.1 for the sake of space use. In addition to the main river, smaller rivulets from the mountains run diagonally into the main stream at the valley bottom. The side of a rivulet that is on the downriver side of the main river is called *zɣæ-zde* while the side that is on the upriver side is called *skʰo-zde*. Only one such rivulet is included at far left of the Figure while all other bodies of water are considered main rivers by the Geshiza.

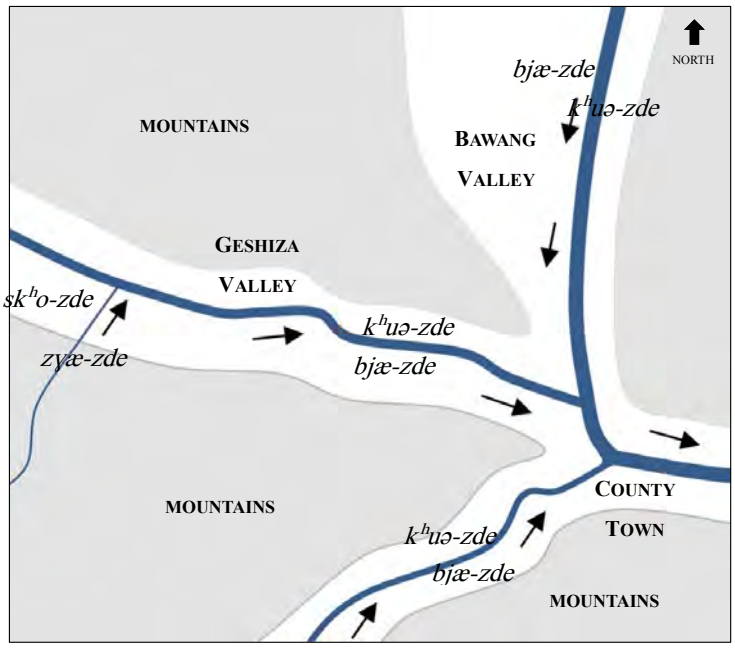


Figure 13.1. Locational nouns based on the river system

Example (13.18) illustrates the system in practice:

(13.18) *ækə-stæmba* *lmæ* *ɲo=ræ* *xaræ* ***ɣæzde*** *dæ-ɕʰə-sʰə-mə-ræ-jə.*
PN-PN 3 after=LNK CONJ **left.bank** PFV-go.PST.3-EP-SENS-REP
Then, *a khu ston pa* went to the left side of the river. (RN: folktale; see §2.7.4. *Major story types* for folklore figure)

Cultural space and tripod sides

The *we-lməu* room (see §2.6.1. *Houses*) where *mbəzli* '(ritual) tripod' is located, has traditionally been the heart of the house, from whence need to lexicalise the space around the tripod. This results in non-deictic locational nouns (13.19). Figure 13.2 on the following page graphically illustrates the system (see also Figure 2.15 at the end of chapter 2 for a corresponding photograph).

(13.19) *tɕægo* 'side from where the tripod is lighted (away from the river)'
wə-kʰuə 'side of the tripod towards the river'
wə-skʰo 'side of the tripod on the upriver side'
wə-zyæ 'side of the tripod on the downriver side'

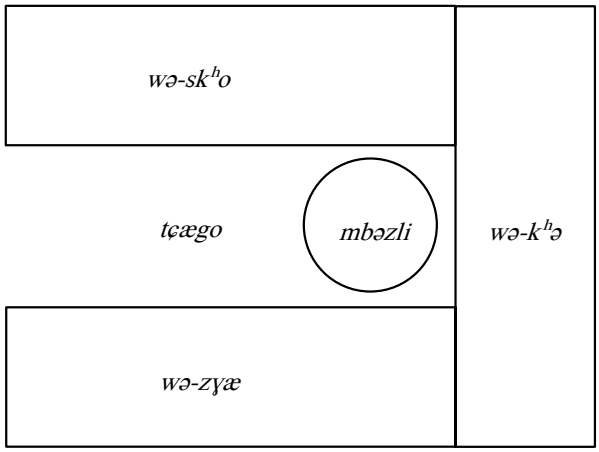


Figure 13.2. Structure of cultural space surrounding *mbəzli* in *we-lməu*

Extending the river (valley)-based spatial system to cover culturally important space inside within household is known among Qiangic and Gyalrongic languages, e.g. Yonghe Qiang Qiang (Sims and Genetti 2017) and Cogtse Gyalrong (Lin 2017).

13.2.2. Temporal deixis

Temporal deixis has two major manifestations in Geshiza: a binary tense system and temporal nouns. The former is discussed in the context of tense-aspect-mood and orientation(§8.4). As a brief summary, Geshiza verbal morphology contains a past (13.20) and non-past (13.21) tense expressed through aspiration alternation (see §4.3.5.3). The past tense always cooccurs with either the imperfective or perfective aspect.

(13.20) Non-past:
mele *tan.*
noodle drink.NPST.1PL
Let's eat noodles.

(13.21) Past:
mele *dæ-tan.*
noodle PFV-drink.PST.1PL
We ate noodles.

The remaining discussion focuses on lexical manifestations of temporal deixis. Geshiza lacks native words for months and weeks. These semantic fields are covered by Tibetan and Chinese loanwords temporal nouns instead. As shown by Bradley (2013), most Trans-

Himalayan languages have lexicalised expressions of time for days and years, but not for months and weeks. Temporal nouns with different grades from the reference point are tabulated in Table 13.3:

Table 13.3. Deictic temporal nouns from the semantic fields of days and years in Geshiza

Distance	Days	Gloss	Years	Gloss
+4	*ɲo-de*	four days from now		
+3	*zɣæ-de*	three days from now		
+2	*s^{h}æ-de*	day after tomorrow	*zɣæ-vi*	year after the next
+1	*q^{h}æs^{h}i*	tomorrow	*s^{h}æ-vi*	next year
0	*bə-sni*	today	*bə-vi*	this year
-1	*mæ-gə*	yesterday	*ʑə-vʑa*	last year
-2	*ŋʤʑə-gə*	day before yesterday	*ŋʤʑə-vʑa*	year before the last
-3	*ŋui-gə*	three days ago		
-4	*s^{h}o-ŋui-gə*	four days ago		

The days show four different grades both into the past and future from the deictic centre *bə-sni* 'today'. Most days with future reference contain the morpheme *-de* 'day (future)' and all past days include *-gə* 'day (past)'. In practice, values between +2 and -2 are used most frequently in conversation (13.22). In comparison to days, years include only two grades. The morpheme *-vi* 'year (non-past)' is included in non-past reference, *-vʑa* 'year (past)' being included in past contexts.

(13.22) ***s^{h}æde=ræ*** *æʑo,* *æpa* *w-a-ʑe=me.*
day.after.tomorrow=LNK maternal.uncle father DIR-OPT-come.3=MOD
Let my father come tomorrow! (RC; the person discussed is the speaker's father and addressee's father-in-law for which she would use the kinship term *æʑo*)

Reference points other than the moment of utterance

If the reference point differs from the moment of utterance, only two distinctions in addition to that moment exist: *ŋui-sni* 'previous day'; *ɲo-sni* 'the day after'; *ŋui-vo* the previous year; *ɲo-vi* 'following year' (13.23):

(13.23) *<k^{h}ɛxui>* *dæ-və=je* ***ŋui-sni=t^{h}ə~t^{h}ə*** *stæ=wo*
meeting PFV-LV:do.INF=GEN **before-day**=TOP~RED everyone=GEN

<ʂetʂʰan> =nɔ *<ʈʂunpe>* *van* *dæ-vɕʰe.*
village.square=LOC preparations LV:do.1PL PFV-AUX.must.PST
On the day before the meeting, all of us had to do the preparations at the village square. (RN: chronicle)

Historical-comparative remark
At least a part of the temporal nouns for days belong to a very old stratum of the lexicon, being shared with some related Gyalrongic languages. For instance, compare with Zbu (Gong 2018): *fsɐⁿdéʔ* 'day after tomorrow'; *zʁoⁿdéʔ* 'three days from now'; *ɲɐⁿdéʔ* 'four days from now'.

13.3. Topic

Like in other documented Gyalrongic languages (see e.g. Sun 2003: 498), topicalisation is a salient feature of Geshiza grammar. 'The topic of a sentence is the thing which the proposition expressed by the sentence IS ABOUT (Lambrecht 1994: 118; emphasis in the original). Geshiza has two major formal topic markers: *=tʰə* for neutral topic (13.3.1) and *=nɔ* for contrastive topic (13.3.2).

13.3.1. Neutral topic

Geshiza has a topicalising enclitic *=tʰə* (glossing: TOP) that originates from the homophonous demonstrative (13.24; see §4.5.2) that also appears independently. The topicaliser has two canonical positions, namely either phrase initial position (13.25) or a right-dislocated afterthought clause (13.26; see §13.7). As (13.25) where Sichuan pepper is familiar from earlier discourse context illustrates, constituents marked with *=tʰə* are often also definite.

(13.24) ***tʰə*** *ætɕʰə-sʰi* *ŋuə-ræ.*
DEM what-tree COP.3-SENS
What kind of tree is that? (RN: chronicle)

(13.25) *o* *ltsʰəu=**tʰə*** *ŋkærlo* *dæ-ləu.*
INTERJ Sichuan.pepper=**TOP** sheller.machine PFV-LV:release.1SG
I shelled the Sichuan pepper. (RN: chronicle)

(13.26) *mə-səu=bɔ,* *lŋamdzo=**tʰə**.*
MOD.NEG-know.3.NPST=MOD baby.gift=**TOP**
I have no idea concerning the baby gift! (RC; see §2.4.3 concerning the tradition of giving gifts to a family with a new-born baby)

Geshiza allows for multiple topicalisation in a single clause. Example (13.27) shows topicalisation on both the copular subject and object. In example (13.28), both the temporal adjunct and subject appear topicalised:

(13.27) *ɕʰərowa* *<ɕantɕyn>* ***lmæ=tʰə*** ***gæ-tɕʰæ=tʰə*** *ŋuə-ræ.*
PN general 3SG=**TOP** ADJZ-big=**TOP** COP.3-SENS
General *ɕʰərowa,* he is the old one (of the two generals). (RN: folktale)

(13.28) *rtso=tʰə* *wəza=tʰə* *mi-dʑi-ræ.* *tɕɔ-ræ.*
cold.season=**TOP** fly=**TOP** NEG-EXV.3-SENS be,pleasant.NPST-SENS
In the cold season, there are no flies. It is pleasant. (RC)

Often, the topicaliser is repeated (13.29). While reduplication appears most frequently, even instances of three repetitions are attested (13.30).

(13.29) *<japʰjæn> -tʰi-me=jə=tʰə~tʰə* *gæ-ndʑi* *dæ-ŋuə-sʰi* *ŋuə-ræ.*
opium-drink-NMLZ:A=PL=**TOP~RED** ADJZ-weird PFV-COP.3-NMLZ COP.3-SENS
Opium smokers (in the past) were weird people. (RN: local history)

(13.30) *pæma-mdʑone=tʰə~tʰə~tʰə~tʰə* *ʤʑæmba-næmkʰa=je* *lŋa* *ŋuə-mə-ræ*
PN-PN=**TOP~RED~RED~RED** PN-PN=GEN child COP.3-EP-SENS

jə-ræ.
say.3-SENS
It is said that Padmasambhava was the child of *dran pa nam mkha'*. (RN: folktale)

All major semantic roles undergo topicalisation. Examples are given below of Agents (13.31); Patients (13.32); Locations (13.33); and Time (13.34):

(13.31) Agent as topic:
ɲu=tʰə *tʰo* *gæ-rtɕʰe.*
2SG.ERG=TOP DEM.LOC IMP-bite.NPST.2SG
Bite that one! (RN: folktale; a frog instructing its dragonfly friends to bite a stick so that they can carry it to a new place flying, the frog holding the middle of the stick.)

(13.32) Patent as topic:
xaræ *æ-snəno* *dæ-v-ra=ræ* ***dzi=tʰə*** *mɛ-ŋgə-sʰi.*
CONJ SEM-smell PFV-INV-LV:hit.3=LNK **food=TOP** ASP.NEG.eat.3-IFR
He smelled the dish once, but didn't eat it. (RN: folktale)

(13.33) Location as topic:

braŋgu=tʰə *ntɕʰæra-ko* *tɕɔ.*

TOPN=TOP enjoy.oneself-NMLZ:LOC be.comfortable.NPST

Danba County Town has many places for entertainment. (RC)

(13.34) Time as topic:

tʰævæ=tʰə *leska=be* *gæ-ʑæʑæ.*

now=TOP work=too IPFV-be.easy

Work too is easy now. (RN: local history)

13.3.2. Contrastive topic

I define contrastive topic for Geshiza as a subtype of topic where an alternative for the topicalised constituent can be imagined. As an example, in (13.35), the speaker contrasts the present situation when gifts for new-born babies have become more costly with the alternative, namely past, when such gifts were still simple:

(13.35) ***ŋæ=ɲi*** ***tɕʰa=nɔ*** *æqɛ* *<xuaju>* *bɔ=zɔ* *dæ-ŋuə-sʰi* *ŋuə-ræ.*

1=PL.GEN **time=TOP.C** all butter like=only PFV-COP.3-NMLZ COP.3-SENS

In our time, (when giving) all (people gave as a gift upon the birth of a new baby) was only butter. (RC; see §2.4.3 concerning childbirth birth gifts in Geshiza culture)

In example (13.36), the contrastive topic highlights that while some other people eat frogs, the Geshiza never do that.

(13.36) *lmæ=ɲə* *gərəu* *lmæ=ɲə* ***spoʁqæl*** ***ŋgə-me=nɔ***

3=PL some 3=PL **frog** **eat-NMLZ:A=TOP.C**

dʑi-ræ=gæ. *ŋæ=ɲə=tʰə* *mi-ŋgoŋ.*

EXV.3-SENS=MOD 1=PL=TOP NEG-eat-1PL

There are (even) some other people who eat frogs! We do not eat them. (RN: interview; see §7.2.1. *ʑɛʰə spirits* concerning the taboo of killing frogs who are seen as manifestations of the *ʑɛʰə* spirits)

It can also be seen that the contrastive topicaliser carries overtones of emphasis marker. In instances like (13.37) where no contrastive meaning can be read, I gloss *=nɔ* as an 'emphatiser' (EMPH).

(13.37) *s^{h}o=**nɔ*** *rka-ræ*.
more=**EMPH** be.hard.NPST-SENS
That is even harder. (RC)

Like the case of general topic, most semantic roles are subject to contrastive topicalisation in Geshiza, examples being offered of Agent (13.38); Patient (13.39); Location (13.40); and Time (13.41):

(13.38) Agent as contrastive topic:

mdʐurten-me=t^{h}ə	*zdupa*	*ma-ræ.*	*xaræ*	***dʑævdʑo=nɔ***	*zdupa*
mortal-SUFF=TOP	pity	NEG.EXV-SENS	but	**bird=TOP.C**	pity

æ-nts^{h}æ *gæ-n-van.*
one-CLF.little.bit IPFV-AB-LV:do.1
The mortal people (i.e. you who are intending to kill us) have no pity, but birds (who sang for us when you were taking us to be killed) had a bit of pity on us. (RN: folktale)

(13.39) Patient as contrastive topic:

xə=nɔ	*ŋa*	*g-ə-mtɕəu.*
DEM=TOP.C	1SG	IPFV-NACT-watch.NPST.1SG

That is the thing that I am watching. (RN: folktale)

(13.40) Location as contrastive topic:

ŋæ=ɲi	***t^{h}o=nɔ***	*tɕɔ=je.*	*bəra=t^{h}ə*
1=PL.GEN	**DEM.LO=TOP.C**	be.pleasant.NPST=MOD	balang=TOP

tɕɔ= bɔ.
be.pleasant.NPST=MOD
Our place is pleasant! Balang is pleasant (in comparison to Danba County Town that was also discussed). (RC)

(13.41) Time as contrastive topic:

tɕ^{h}u	***gædə=nɔ***	*rjan=ræ~ræ*	*a̱ɕ^{h}ə=ɲə*
CONJ	**morning=TOP.C**	wake.up.1=LNK~RED	fertiliser=PL

d-ə-zvəu.
PREF-NACT-sprinkle.fertiliser.1SG
So I wake up early in the morning and sprinkle the fertiliser (on the fields). (RN: procedure)

13.4. Focus

The exact meaning of the term 'focus' differs in different research traditions and across scholars. For the purposes of this grammar, I follow Stevens's (2017) definition, namely focus referring 'to the portion of an utterance which is especially informative or important within the context, and which is marked as such via some linguistic means.' Similar to topicalization discussed in (§13.3), I identify two focus enclitics in Geshiza: neutral focus (§13.4.1) and contrastive focus (§13.4.2). Due to insufficient data vis-à-vis ubiquitous topic marking in the source materials, the two are merely sketched below.

13.4.1. Neutral focus

Neutral focus in Geshiza is expressed with the enclitic *=læ* (glossing: FOC). The enclitic usually attaches to personal pronouns (13.42, 13.43). Instances with whole clauses under focus, however, can also be seen (13.44).

(13.42) *qʰæsʰi=tʰə* *ŋæ=næ=tʰə* ***ŋa=læ*** *leska* *ɕoŋ=ræ* ***ɲi=læ***
tomorrow=TOP 1=DU=TOP **1SG=FOC** work go.NPST=LNK **2SG=FOC**

<ʈʂʰetsə> *rdʑu* *vɕe-ræ.*
car drive AUX.need.NPST-SENS
Tomorrow, as for the two of use, I will go to work and you need to drive the car.

(13.43) *mdʑurtenme* *jə-mə,* ***ŋæ=ɲə=ke=læ.***
common.people say.3-**EP** **1=PL=DAT=FOC**
We are called 'common people'. (RN: metanarration in a folktale: see §2.7.2 concerning Geshiza ontology)

(13.44) *<ɕʰoɕən>* ***næ-ɕʰoŋ=læ*** *mi-zda.*
student **PFV.DIR-go.PST.1=FOC** NEG.AUX.EXP.PERF
I haven't been to school. (RN; personal history)

13.4.2. Contrastive focus

The enclitic *=ɕʰə* (glossing: FOC.C.) is tentatively analysed here as a marker of contrastive focus. In (13.45), the enclitic indicates that 'today' is finally the day when the speaker plans to leave the host and go away.

(13.45) *wnæ-wsʰu-rja* *gæ-tʰje=wo* ***bəsni=ɕʰə*** *ɕʰoŋ.*
two-three-CLF.night IPFV-become.PST.3=cause **today=FOC.C** go.NPST.1
Two-three days have passed so I will go today. (MEE)

Similarly, in (13.46), *a khu ston pa*, a Tibetan trickster hero (), has met two traders and plans to deceive them. He tells the traders that unlike them, he is busy and thus wants to eat first:

(13.46) ***ŋa=ɕʰə*** *boboŋ-ræ* *tɕʰu* *ŋa=tʰə* *skɛ* *ŋui* *ŋgu.*
1SG=FOC.C be.busy.1-SENS CONJ 1SG=TOP more first eat.1SG
I am busy, so I will eat first. (RN: folktale; see §2.7.4. *Major story types* for the folklore figure)

13.5. Definiteness

This section concerns definiteness in Geshiza. Definiteness is either considered a semantical-pragmatic property or a grammatical category (see Lyons 1999 who argues for the latter interpretation). Here I define definiteness as identifiability or lack of thereof for noun phrases referents in a given discourse context. The following discussion addressees the categories of indefinite (§13.5.1) and definite (§13.5.2) in Geshiza. The language lacks a definite article, but manifests a dedicated indefinite classifier functionally interpreted as an indefinite article.

13.5.1. Indefinite

Geshiza has a dedicated indefinite classifier (see §4.7.1) cooccurring only the bound numeral *æ-* 'one' (see §4.6.1): *æ-lə* (ONE-CLF.INDEF) or the distributive prefix (see §5.5.4): *gə-lə* (DIST-CLF.INDEF). It occurs when the speaker introduces a new referent to the stage of discourse (13.47). The indefinite classifier can be replaced by a 'full classifier' with no noticeable difference (13.48).

(13.47) *xə=ɲi* *groŋ* *noŋ* *doŋkʰær* *gæ-tɕʰæ* *æ-lə*
DEM=PL.GEN village in large.prayer.wheel ADJ-big one-CLF.INDEF

də-ræ.
EXV-SENS
They have a big prayer wheel in their village. (MEE)

(13.48) *xə=ɲi* *groŋ* *noŋ* *doŋkʰær* *gæ-tɕʰæ* *æ-rgəu*
DEM=PL.GEN village in large.prayer.wheel ADJ-big one-CLF.general

də-ræ.
EXV-SENS
They have a big prayer wheel in their village. (ACC; see 13.47)

Comparative remark

A historical connection between classifiers and indefinite marking in the proposed Qiangic languages. To illustrate, in Puxi Qiang, the classifiers *dzua* and *tɕi* function as indefinite markers when not accompanied by numerals (Huang 2004: 135).

13.5.2. Definite

Geshiza grammar has no dedicated marker for definiteness. Like in other languages, proper nouns are by default intrinsically definite. Also, as discussed in (§13.3.1), the neutral topicaliser *=tʰə* generally attaches to definite constituents.

13.6. Discourse intensifiers

Intensifiers enclitics have an important role in Geshiza discourse. Their inventory includes three prominent members: inclusive intensifier *=be ~ =me* 'also, neither' (§13.6.1.); restrictive intensifier *=zɔ* 'only' (§13.6.2.); and limitative intensifier *=me ~ =mde* 'only, no more/other than' (§13.6.3). The adopted term 'intensifier' is used in Trans-Himalayan studies in similar contexts (*inter alia* Daudey 2014; Mazaudon 2003).

13.6.1. Inclusive intensifier *=be ~ =me* 'also, neither'

The intensifying enclitic *=be ~ =me* expresses inclusion in declarative clauses (13.49) where it is translated as 'also, too'. In negative clauses, it encodes mutual exclusion 'either, neither' (13.50). The enclitic is subject to *b ~ m* free interspeaker variation (see §3.5.2).

(13.49)

oja	*sʰi*	*gæ-tɕʰæ*	*oja*	*bətɕəu*	*gæ-tɕʰæ*
INTERJ	tree	ADJZ-big	INTERJ	centipede	ADJZ-big

bɔ=tʰə=ke	*tʰɔ*	*v-ra*	*jə-me*	*dæ-ŋuə.*
like=DEM=DAT	lightning.bolt	INV-hit	say-NMLZ:P	PFV-COP.3

xaræ	***vdzi=ke=be***	*v-ra*	*jə-me*	*dæ=tʰə*	*dæ=ŋuə=bɔ.*
but	**person=DAT=too**	INV-hit	say-NMLZ:P	PFV=TOP	PFV-COP3=MOD

It was said that thunderbolts hit big trees and big centipedes. But (in addition,) it was said that (thunder bolts) hit people too. (RN: saying; see §15.5 for the full Geshiza saying and its explanation)

(13.50)

tʰi	*lmə=tʰə~tʰə*	***ŋa=be***	*mə-səu=bɔ.*
DEM.GEN	name=TOP~RED	**1SG=too**	MOD.NEG-know.NPST.1SG=MOD

I don't know his name either. (RN: ethnographic description)

13.6.2. Restrictive enclitic *=zɔ* 'only'

The restrictive enclitic *=zɔ* 'only' emphasises the restrictive interpretation of its host phrase: e.g. *bəsni=zɔ* 'only today (and not on other days)', *ɲi=zɔ* 'only you (and not other people)'. In (13.51), the restrictive enclitic highlights the speaker's criticism that life has become too money-centred. In (13.52), it indicates that the Jiarong Charm Festival is organised once in a year only, not more frequently:

(13.51) *ætɕʰəroro* *tɕʰa* ***<pʰiəutsə>=zɔ*** *ŋuə-ræ=me.*
whatever on **money=only** COP.3-SENS=MOD
(Now) everything is only about money. (RC; see §2.5.1 about the integration of Geshiza Valley into the Chinese monetary economy)

(13.52) *<ji>* *<niæn>* *<ji>* *<tu>* *æ-ko* *ɣæ-mnæ-slə* *tɕʰa*
one year one time one-CLF.year ten-two-CLF.month time

æ-li=zɔ *ŋuə-ræ=bɔ.*
one-CLF.times=only COP.3-SENS=MOD
(The Jiarong Charm Festival) is only once in a year (RN: cultural description; see §2.4.1. *Jiarong Charm Festival* for the festival)

13.6.3. Limitative enclitic *=me ~ =mde* 'only, no more/other than'

The limitative enclitic *=me ~ =mde* 'only, no more/other than, apart from, besides' is similar to the more frequent restrictive enclitic *=zɔ* 'only', but always occurs in negative clauses only (13.53; 13.54). Subsection §11.4.2 in the context of negation provides more information concerning this polarity item that is subject to free interspeaker variation with some generally younger speakers preferring the non-clustered form.

(13.53) *bjəwa* *æ-lə=je* ***tsʰetsæ=mde*** ***mi-ntɕʰo-ræ=mɔ.***
mouse one-CLF.INDEF=GEN **life.span=only** **NEG-have.NPST.3-SENS**=MOD
He only has the life span of a mouse (i.e., He will die very soon.) (RN: folktale)

(13.54) *a* *ɲi* *tɕʰa=tʰə* ***mærŋə=mde*** *sʰo* ***ma-ræ.***
INTERJ 2SG.GEN above=TOP **sky=only** more **NEG.EXV-SENS**
Only the sky is above you, nothing more. (RN: folktale)

13.7. Right dislocation

This segment introduces right dislocation in Geshiza. For reasons of information packing, a constituent is often moved away from its expected syntactic position to the end of a clause. After defining right dislocation (§13.7.1), I address its discourse functions (§13.7.2) and offer an overview of semantic roles subject to dislocation (§13.7.3).

13.7.1. Definition

A constituent may be moved to a clause-final position due to pragmatic factors, termed as 'afterthought' locus here. This is an example of right dislocation, also known as right detachment; and antitopic in the terminology of Lambrecht 1994), a construction widely attested across languages for information packaging. In a typological study, Lambrecht (2001: 1050) lists four criteria for classifying a construction as prototypical dislocation, only the first one being obligatory: 1. extra-clausal position of a constituent; 2. possible alternative intra-clausal position; 3. pronominal coindexation; 4. special prosody.

In Geshiza, any clausal constituent removed from its canonical place and placed after the predicate verb to the afterthought locus is considered dislocated. This fulfils Lambrecht's obligatory criterion 1. Also, the primary consult I work with is able to reinstate the constituent in afterthought locus into its original position vis-à-vis canonical constituent order, corresponding to the criterion 2. This is illustrated in the contrastive pair (13.55, 13.56):

(13.55) *sʰævi* *tɕʰu* *mdʑə* *vɕe-ræ,* ***<tʂʰetsə>.***
next.year.ABS CONJ exchange.INF AUX.need-SENS **car.ABS**
It car needs to be changed the next year, the car. (RC)

(13.56) *sʰævi* *tɕʰu* ***<tʂʰetsə>*** *mdʑə* *vɕe-ræ.*
next.year.ABS CONJ **car.ABS** exchange.INF AUX.need-SENS
The car needs to be changed the next year. (ACC; see 13.55)

As a convention and for the ease of recognisability, dislocated constituents are marked with a comma in this grammar. As in Mandarin Chinese (Lee 2013: 8), Geshiza dislocations even follow the modal discourse enclitics typically placed clause-finally (13.57):

(13.57) *sʰo* *wnæ-ko* *mətsʰæ* *bɔlə* *gæ-lɛ-tɕʰi=bɔ,*
more two-CLF.year.ABS more about IPFV-LV:release.2SG-AUX.can=MOD

tʰə=tʰə.
DEM.ABS=TOP
You can drive it more than about two years, that one (i.e. a car) (RC)

Placement of dislocated constituents

Right dislocations are not the only element occurring outside a core clause, When a tag question is additionally present, the three are arranged as follows: original clause + tag question + dislocated constituent, illustrated in (13.58):

(13.58) *<tɕæntæn>* *æ-gə=zɔ* *n-ə-vɕəu,* *æ-ŋuə-ræ,*
simple one-CLF.letter.ABS=only PREF-NACT-speak.NPST.1SG Q-COP.3-SENS

tʰævæ=tʰə.
now.ABS=TOP
I will tell only a simple one (i.e. story) now, right? (RC)

Multiple dislocations

Although rare, Geshiza allows the dislocation of more than one constituent, as shown in (13.59). The phenomenon is cross-linguistically common among languages with right dislocation (Lambrecht 2001: 1060).

(13.59) *ŋæ=ɲi* *a̱na* *tɕʰu* *wrə=tʰə=ræ* *kʰəu* *dæ-krəm-sʰi*
1=PL.GEN past CONJ water=TOP=LNK draw.water.INF PFV-have.custom.NMLZ

ŋuə-ræ, ***gæwdo=wo=tɕe,*** *ræmər-wa=ræ.*
COP.3-SENS **wooden.container=ERG=INSTR** **well-APUD=LNK**
In the past, we had the custom of drawing water by a wooden container from a well. (RN: folktale)

Question of extra-clausality

Previous analysis (see e.g. Lambrecht 2001: 1065-1067) often represents dislocated constituents as extra-clausal, which among others implies them being outside governance from the predicate verb in the core clause. Work on right dislocation nevertheless rarely takes a functional-typological approach, with the result that the universal applicability of the findings can often be questioned. As Iemmolo (2014) shows in the context of dislocated objects with a sample size of 133 languages, the extra-clausal hypothesis as a universal claim appears erroneous in typological light. Constituents subject to right dislocation in Geshiza often show unambiguous signs of uninterrupted syntactic links with the predicate verb in the core clause. For instance, in (13.60), Agent dislocation retains the ergative case triggered by the verb *jə* (V2b) 'say'. Dislocated constituents cannot thus be considered syntactically extra-clausal in the language.

(13.60) *tʰə=tʰə* *mi-ɣa* *jə-wo,* ***vdzi=wo.***
DEM=TOP NEG-be.problem say.3-QUOT **man=ERG**
That's not a problem, he said, the man. (RN: folktale)

13.7.2. Functions of right dislocation

Three major functions for right dislocation were identified for right dislocation: emphasis, constituent reactivation on the stage of discourse, and supplying additional, secondary information.

Emphasis

First, right dislocation has an emphatic function on the dislocated constituent. In (13.61), argument indexation in the predicate suffices to identify the agent unambiguously as the speaker, but the dislocated pronoun *ŋa* 'I' is used for emphatic purposes, which highlights the fact that among the family members, the speaker takes it as his responsibility to enquire concerning a place for staying further west in Geshiza Valley during a trip:

(13.61) *<konʂe> =kʰa* *ndzo-ko* *xaræ* *g-ə-rjəu-tɕʰi,* ***ŋa.***
commune=about stay-NMLZ:LOC CONJ PREF-NACT-ask.1SG-AUX.can **1SG**
I can ask about a place for staying close to the commune. (RC; see §2.8.1. *Incorporation into the PRC and modern times* for the meaning and continued use of the Chinese term *gōngshè* 公社 'commune' borrowed into Geshiza.)

Occasionally, a constituent appears both in its canonical position and in the afterthought locus for emphatic purposes, as in (13.62):

(13.62) *braŋgu* *sʰo* ***dzi*** *ʑo-ræ=me,* ***dzi.***
TOPN DM **food** be.tasty-SENS=MOD food
Food is tasty in Danba County Town. (RC)

Reactivating a constituent in discourse

Second, right dislocation reactivating a constituent in discourse. Unlike in formal speech, everyday discourse is characterised by lack of conscious planning, which may result in exclusion of constituents the speaker would have otherwise included in more stylised speech. During production of speech, the speaker may consequently become aware that a constituent supposed to be active in the stage of discourse requires reactivating. As a result, such constituent is added as an afterthought by means of right dislocation. The function of dislocation as an afterthought or repair device is mentioned since early research on the subject (Givón 2001b: 267). In (13.63), the speaker adds the locative adjunct *keʂan* 'county town' to make sure the addressee understands that the place with a high cost of living refers to Danba County Town:

(13.63) *<pʰiəutsə> =tʰə dʑo~dʑo vɕe-ræ, <**keʂan**> =**tʰə~tʰə.***
money.ABS=TOP RED.ADJZ~lot need-SENS **county.town.ABS=TOP~RED**
One needs a lot of money (to live) in Danba County Town. (RC)

Supply of additional information
Right dislocations lie at the 'right periphery' also introduce additional information that, albeit secondary, is nevertheless relevant for the ongoing discourse (13.64, 13.65):

(13.64) *ŋa=be səu-me æ-ɣi dʑi=me,*
1SG=too know.NPST.1SG-NMLZ:P one-CLF.person EXV.3=MOD

ndæmdo lala.
PN **mat.aunt**
There is too an acquaintance of mine, a lady from Dandong. (RC)

(13.65) *jovæ æ-vtɕa=je=ræ lŋa æ-lə næ-stɕe-sʰi,*
couple one-CLF.pair=GEN=LNK child one-CLF.INDEF PFV-be.born.PST.3-NMLZ

bəʑə æ-lə.
boy **one-CLF.INDEF**
A child was born to a couple, a boy. (RN: folktale)

Right dislocation and topicalisation
As the examples on the following page show, constituents subject to right dislocation can be topicalised. In addition to the default sentence-head topicalisation, afterthought locus is the second syntactic position where topicalisation commonly occurs. On occasion, this results in two topicalised constituents, as in (13.63).

13.7.3. Right dislocation of semantic roles

Right dislocation shows high productivity in Geshiza and concerns all major argument and adjunct types, examples offered on S (13.66); A (13.67); P (13.68); R (13.69); instrumental adjunct (13.70); locative adjunct (13.71); and temporal adjunct (13.72):

(13.66) S dislocation:
*va-dzi æ-rzi kʰuæ dæ-ɕʰoŋ, **ŋa.***
pig-food ONE-CLF.load.on.back.ABS cut.INF PFV-go.PST.1 **1SG.**
I went to cut one load of pig food. (RC)

(13.67) A dislocation:

ʻɲi	*nt^{h}u*	*æ-q^{h}a=t^{h}ə*	*lɔ*	*dæ-ʑe=mdeʼ*
2SG	fatty.meat	one-CLF.stick.ABS=TOP	again	IMP-bring.2SG=MOD

dæ-jə-s^{h}ə-mə-ræ-jə, ***ts^{h}oŋpən.***
PFV-say.3-IFR-X-SENS-REP **trader**
'You, bring the piece of fatty meat (that you stole) back again!' he said, the trader. (RN: folktale)

(13.68) P dislocation:

lŋa=ɲu	*smær-ræ,*	***<joŋji>=t^{h}ə.***
child=PL.ERG	like.3-SENS	**potato=TOP**

(Our) children like potatoes. (RC: procedure)

(13.69) R dislocation:

ʻq^{h}æs^{h}i	*æʑo=wo*	*tænkə*	*æ-rgəu*	*gæ-ri*
tomorrow	mat.uncle=ERG	cake	one-CLF.general	IMP-buy.2SG

di-jinʼ, ***æpa=ke.***
PFV-Q-say.3 **father=DAT**
Did you tell your father to buy a cake tomorrow? Lit. Did you say (to your father): 'Buy a cake!' (RC)

(13.70) Instrumental adjunct dislocation:

ʻɳʤʐa	*æ-lə*	*næ-vtɕe=mdeʼ*	*dæ-jə-s^{h}ə-mə-ræ,*
effigy	one-CLF.INDEF.ABS	IMP-make.NPST.2SG=MOD	PFV-say.3-IFR-EP-SENS

ʻrtɕ^{h}o=tɕe.ʼ
clay=INSTR
'Make (me) an effigy, of clay', she said. (RN: folktale)

(13.71) Locative adjunct dislocation:

be	*dæ-lxua*	*næ-ɕ^{h}ə,*	***qlo=nɔ.***
flood	PFV-appear.3	PFV.DIR-go.PST.3	**valley=LOC**

There was a flood. It came down along the side valley (RN: local history; here the polysemous *qlo* refers not to the main valley surrounded by mountains, but a depression on its side carrying water down from the mountains)

(13.72) Temporal adjunct dislocation:

bɔtʰə	*ŋuə-ræ,*	***məsni=tʰə.***
like.thig	COP.3-SENS	**today=TOP**

Today is like this. (RN: chronicle)

Typological-comparative remark

Unlike in a 'standard average European' language, a dislocated constituent in Geshiza need not be anaphorically coreferential with the main clause: e.g. *He*$_i$ *was really fast indeed, the winner*$_i$. vs. **Was very fast indeed, the winner.*

13.8. Summary

This chapter provided a sketch of strategies used in reference tracking and information structure in Geshiza. Among topics of Geshiza grammar, particularly the present field offers many opportunities for future fine-tuning in the form of dedicated studies. Rather than relying on pronouns, the language relies primarily on orientational prefixes of verbs, locational nouns, and directional adverbs for encoding spatial deixis. The main strategies of temporal deixis consists of a binary tense system (past vs. non-past) and an extensive set of deictic temporal nouns that indicate time maximally grades units away from the reference point. Both topic and focus are expressed through dedicated information structure enclitics that distinguish neutral and contrastive subcategories. Finally, right dislocation plays an important role as an information packaging strategy in Geshiza.

CHAPTER FOURTEEN

Linguistic contact, lexicon, and lexical registers

Geshiza has been in extensive contact with Tibetic languages, while the current situation is characterised by intensive contact with Sichuanese Mandarin and also to a degree with Mandarin. Most conspicuously, the results of linguistic contact can be seen in the lexicon, the main focus in this chapter. Offering an overview of linguistic contact, the discussion herein thus concerns properties of Geshiza lexicon (§14.1); native lexicon (§14.2); loanwords (§14.3); and lexical registers (§14.4). The chapter ends with a summary (§14.5).

14.1. Properties of the lexicon

The collected lexicon consists of monosyllabic and polysyllabic words, Table 14.1 below illustrating the major attested syllable types. Duo'erji (1997: 32) states that out of the 1582 basic Geshiza lexical items surveyed, 755 or 47.72% were monosyllabic. While this applies to basic lexical items, the prevalence of compounding (see §6.3) in Geshiza means that the aggregate total lexicon actually comprises predominantly polysyllabic lexical items. The verbs show the strongest tendency towards monosyllabicity. Of 630 verb roots analysed in this grammar, 520 (82,5%) were monosyllabic and the remaining 110 (17,5%) disyllabic. No trisyllabic verb roots are attested in the source materials.

Table 14.1. Geshiza lexicon from the viewpoint of syllable count

Syllable type	Example	Gloss
monosyllabic words	*wne*	two
	lɔ	again
	rɣi	to wash
disyllabic words	*kə.ta*	dog
	mtɕʰə.kʰi	to watch, look
	tʰæ.væ	now
trisyllabic words	*ʑjɔ.bjæ.no*	yak meat
	ʐæ.brəu.ɲo	backside of the palm
	rgo.vrkra.la	cow with a pattern on its skin
quadrisyllabic words	*skær.va.na.na*	meat from a pilgrimage trip
	do.rʐi.pʰa.læn	diamond (folklore register)
	ŋkʰu.ma.skæ.lo	key strap

All monosyllabic and a part of the disyllabic words are synchronically non-compositional. In contrast, all surveyed tri- and quadrisyllabic words in Geshiza are compositional. For instance, the trisyllabic word *bəʑə-lŋa* 'young boy' consists of the indivisible root *bəʑə* 'boy' and the diminutive suffix *-lŋa* (see §6.2.2.1). Words with a syllabic count above four, however, are rarer in the lexicon. While they do exist among the nouns, such as *mə.ka.mə.vse.me* 'shameless person', words with more than five syllables are generally attested only in animal-call interjections (see §4.12.2) that use reduplication.

Diachronically speaking, the lexicon consists of at least the following major lexical strata, introduced in the following sections: the native lexicon, Tibetan loanwords, and Chinese loanwords. Research concerning Geshiza loanwords not only benefits the understanding of diachronic composition of the language, but also helps in determining the history of the speaker community's interactions with the surrounding peoples. Contact situations involving cultural and technological transfer usually result in lexical transfer, i.e. borrowing. Thus, after analysing the Geshiza lexicon from the viewpoint of loanwords, the spread of technological and cultural innovations into the language community becomes clearer.

14.2. Native lexicon

This section gives a brief overview of native Geshiza native lexicon. Despite extensive borrowing throughout its history, a large share of Geshiza core vocabulary has remained in the language for a long time. These lexical items are referred to as the native lexicon in this grammar. A sample of the native lexicon with Proto-Trans-Himalayan cognates listed is provided in Table 14.2, reconstruction of the forms following Matisoff (2003). After Proto-Horpa and Proto-Gyalrongic have been reconstructed, it will be possible to analyse historical sound changes from in more detail.

Table 14.2. A sample of the native lexicon inherited from Proto-Trans-Himalayan

Geshiza	Gloss	PTH	Gloss
v-dæ	to do, light verb	*day	to do, make
lji	to wait	*lyaŋ	to wait
məu	eye	*mik	eye
ɲi	you	*naŋ	you
ŋa	I	*ŋa-y	I
sɲe	seven	*s-nis	seven
sŋar	frost	*s-ŋar	frost
s^{h}æ	to die	*səy	to die
wo	bear	*d-wam	bear
ws^{h}u	three	*g-sum	three

Because even core vocabulary items are occasionally borrowed, some words considered a part of the inherited native lexicon may have been borrowed at an early stage of Geshiza. At the current stage of scholarship, it is thus difficult to ascertain which lexemes derive directly from Proto-Trans-Himalayan, which ones represent innovations, and which ones have been borrowed from related languages in the course of Geshiza's evolution. In any case, as the previous page shows, the language has retained many lexical items that are considered part of the proto-language's lexicon.

14.3. Loanwords

This section discusses loanwords in Geshiza. In addition to the native lexicon discussed above, loanwords appear frequently in Geshiza. The loanwords have two clearly distinguishable sources: Tibetan loanwords (§14.3.1) and Chinese loanwords (§14.3.2), both of which contain older and newer loans. The section ends with a brief comment on the possibility of other donor languages in the linguistic history of Geshiza (§14.3.3).

14.3.1. Tibetan loanwords

Geshiza contains many Tibetan loanwords, which testifies of an intensive and long-lasting contact with Tibetic-speaking people in the past. In contrast to the Chinese loanwords the major part of which tends to be relatively new, Tibetan loanwords have become more deeply rooted in Geshiza. This can be seen from the fact that most speakers consider the Chinese elements alien whereas the Tibetan loanwords are accepted as a part of the Geshiza lexicon without reserve. Most speakers are not aware of the loanword status of the Tibetan loanwords.

The relationship between Tibetan and Gyalrongic languages is complex, since in addition to borrowing that results from long contact, the two branches also share cognates originating from the same ancestor (Jacques 2003). This makes the task of establishing loanwords challenging, the process essentially requiring the comparison of cognate sets and suspected loanwords. At the current stage of research, it is premature to establish phonological accommodation patterns of loanwords from Tibetan into Geshiza, since among other things, this would require fairly accurate identification of the donor lect among Tibetic languages to achieve the highest level of reliability. Consequently, instead of this donor language-centred approach, this subsection focuses on Geshiza by showing the parts of phonology and phonotaxis active in the lexical strata of Tibetan loanwords.

Vowels

All eight Geshiza vowels appear in Tibetan loanwords, illustrated in Table 14.3 below. The marginal vowel is also attested in several instances, notably in the loanword *ɱbrɛ* 'rice' < Tib. *'bras* 'rice'. Many instances of the vowel /ɔ/ originate from Tibetan borrowing (see §3.2.1): *stɔ* tiger < Tib. *stag* 'tiger'. In contrast to monophthongs, Tibetan loanwords show a lesser range of diphthongs. Only the diphthongs /ue/ and /əu/ are attested, the former being especially rare: *tɕʰue* 'dharma, religion' < Tib. *chos* 'ibid.'; *tʰəu* 'oven, hearth, stove' < Tib. *thab* 'ibid.'.

Table 14.3. Examples of monophthongs in the Tibetan loanwords

Vowels	Example	Tibetan source
/i/	*a̱pi* 'saying'	*dpe* 'saying, metaphor'
/e/	*tsʰe* 'life, lifespan'	*tshe* 'life, lifespan'
/æ/	*læma* 'lama'	*bla ma* 'lama'
/a/	*dʑa* 'tea'	*ja* 'tea'
/ə/	*skə* 'Buddha'	*sku* 'Buddha'
/ɔ/	*a̱jɔ* 'yak'	*g.yag* 'yak'
/o/	*lo* 'year'	*lo* 'year'
/u/	*a̱du* 'umbrella'	*gdugs* 'umbrella'

Written Tibetan *i* and *u* are in many, but not all cases reflected as /ə/ in Geshiza: Tib. *bju ru* 'coral', Ge. *bjərə* 'coral'; Tib. *shing nags* 'forest'; Ge. *sʰənɔ* 'forest'. This, however, likely reflects the pronunciation of the donor Tibetic lect. In Amdo Tibetan, both *i* and *u* of Written Tibetan have become centralised.

Consonants

Table 14.4 on the following page gives examples of the range of non-clustered consonants in Tibetan loanwords. All Geshiza consonants, except the uvular plosives /q/ and /qʰ/; the retroflex affricates /ʈʂ ~ ʈ/ and /ʈʂʰ ~ ʈʰ/; and the marginal phonemes /f, ʂ/ predominantly present in Chinese loanwords, appear in Tibetan loanwords. The absent phonemes are indicated with parenthesis and strikethrough in the Table. A second restriction concerns independent occurrence: Geshiza consonant phonemes that never occur except as a part of a consonant cluster are presented with underlining. Further research on Geshiza lexical strata borrowed from Tibetan amplifying the data set, however, may reveal new cases of independent occurrence.

Table 14.4. Consonant inventory present in Tibetan loanwords

Type	Bilabial	Labio-dental	Dental-alveolar	Alveolo-palatal	Retroflex	Palatal	Velar	Uvular
Plosives	*p*		*t*				*k*	~~*(q)*~~
	p^{h}		*t*^{h}				*k*^{h}	~~*(q*^{h}*)*~~
	b		*d*				*g*	
Affricates			*ts*	*tɕ*	*tʂ* ~ *ʈ*			
			ts^{h}	*tɕ*^{h}	*tʂ*^{h} ~ *ʈ*^{h}			
			dz	*dʑ*	*dʐ* ~ *ɖ*			
Fricatives		~~*(f)*~~	*s*	*ɕ*	~~*(ʂ)*~~		*x*	
			s^{h}	*ɕ*^{h}				
		v	*z*	*ʑ*			*ɣ*	
Nasals	*m*		*n*			*ɲ*	*ŋ*	
Approx.	*w*		*l*		*r*	*j*		

Table 14.5. below illustrates the attested non-clustered consonants Tibetan loanwords:

Table 14.5. Examples of non-clustered consonants in Tibetan loanwords

Consonant	Example	Tibetan source
/p/	*pær* 'to print, copy'	*par* 'to print, publish'
/pʰ/	*pʰæn* 'to be beneficial'	*phan* 'benefit'
/b/	*bəu* 'to get off'	*bab* 'to descend'
/t/	*tɔ* 'to be accurate (predictions)'	*tag* 'correct'
/tʰ/	*tʰəu* 'oven, hearth, stove'	*thab* 'oven, hearth, stove'
/d/	*doŋ* 'Tibetan horn'	*dung* 'Tibetan horn'
/k/	*kærkær* 'round'	*sgor sgor* 'round'
/kʰ/	*kʰæmbə* 'sweet apricot'	*kham bu* 'peach, apricot'
/g/	*gæmze* 'Garzê'	*dkar mdzes* 'Garzê'
/ts/	*tsætɕʰə* 'hot spring'	*tsa chu* 'hot spring'
/tsʰ/	*tsʰe* 'life, lifespan'	*tshe* 'life, lifespan'
/tɕ/	*tɕo* 'iron'	*lcags* 'iron'
/tɕʰ/	*tɕʰæpa* 'fine'	*chad pa* 'fine'
/dʑ/	*dʑa* 'tea'	*ja* 'tea'
/ʈʂ ~ ʈ/	*ʈʂaɕʰi* 'personal name'	*bkra shis* 'personal name'
/ʈʂʰ ~ ʈʰ/	*æ-ʈʂʰɔ* 'classifier for holes'	*phrag* 'hollow, intermediate space'
/ɖʐ ~ ɖ/	*ɖʐəma* 'body dirt'	*dri ma* 'dirt'
/s/	*læsær* 'New Year'	*lo gsar* 'New Year'
/sʰ/	*sʰætɕa* 'place'	*sa cha* 'place'
/z/	*zər* 'corner'	*zur* 'corner'
/ɕ/	*ɕo* 'curdled milk, yoghurt'	*sho* 'yoghurt'
/ɕʰ/	*ɕʰæ* 'god'	*lha* 'god'
/ʑ/	*skəʑɔ* 'reincarnated master'	*sku zhabs* 'your lordship'
/x/	*xər-braŋgu* 'Luhuo' (toponym)	*hor bra 'go* 'Luhuo'
/m/	*maxe* 'water buffalo'	*ma he 'water buffalo'*
/n/	*nærbə* 'type of decorative pattern'	*nor bu* 'jewel, precious thing'
/ɲ/	*ɲəuroŋ* 'Xinlong' (toponym)	*nyag rong* 'Xinlong'
/ŋ/	*ŋæmba* 'bad'	*ngan pa* 'mean, bad'
/w/	*wəkʰo* 'heart, insides of the mind'	*blo khog* 'insides of the mind'
/l/	*lædu* 'altitude sickness'	*la dug* 'altitude sickness'
/r/	*rəmu* 'picture, painting'	*ri mo* 'picture, painting'
/j/	*joɳɖʐoŋ* 'sauwastika'	*g.yung drung* 'sauwastika'

Consonant clusters

Consonant clusters characterise Tibetan loanwords in Geshiza. For a detailed discussion concerning Geshiza consonant cluster types, see §3.3.2. Also, see Wang (1970-71) for a treatment of consonant clusters in Tibetan loanwords of Stau. All attested Geshiza C_pC_i clusters in Tibetan loanwords are listed in table 14.6 below:

Table 14.6. Attested C_pC_i clusters in Tibetan loanwords

C_p	C_i											
	m	n	ɲ	ŋ	p	b	t	t^h	d	k	k^h	g
N						*(mb)*[82]		*nt^h*	*nd*		*$ŋk^h$*	*ŋg*
m		*mn*	*mɲ*			*mb*		*mt^h*	*md*		*mk^h*	*mg*
l				*lŋ*			*lt*					*lg*
r	*rm*		*rɲ*	*rŋ*			*rt*		*rd*	*rk*		*rg*
v/f							*vt*		*vd*	*vk*		
s/z	*sm*	*sn*	*sɲ*		*sp*		*st*		*zd*	*sk*		*zg*
x/ɣ	*(ɣm)*	*(ɣn)*	*(ɣɲ)*		*(xp)*		*(xt)*		*(ɣd)*			

cont.

C_p	C_i														
	ts	ts^h	dz	tɕ	$tɕ^h$	dʑ	dʐ	v	s	s^h	z	ɕ	$ɕ^h$	ʑ	j
N			*ndz*		*$ntɕ^h$*	*ndʑ*	*ɳɖʐ*								*ɲj*
m		*mts^h*	*mdz*		*$mtɕ^h$*	*mdʑ*					*mz*				
l															
r	*rts*		*rdz*	*rtɕ*		*rdʑ*									
v	*vts*								*vs*	*vs^h*	*vz*	*vɕ*	*$vɕ^h$*	*vʑ*	
s/z				*stɕ*		*zdʑ*		*zv*							
x/ɣ	*(xts)*			*xtɕ*				*(ɣv)*	*(xs)*		*(ɣz)*			*(ɣʑ)*	

The table lists only phonotactically unambigous cases. In other words, cases that are potentially phonologically ambiguous, such as *ndʑælk^{h}a* 'visit' < Tib. *mjal kha* 'audience' are interpreted with maximising the leftmost syllable, e.g. *ndʑæl.k^{h}a*, rather than the rightmost syllable, e.g. *ndʑæ.lk^{h}a*, and consequently excluded from the range of C_pC_i clusters.

Phonologically, Tibetan loanwords in Geshiza are characterised by their preservation of Old Tibetan consonant clusters, often better than in any contemporary Tibetic languages. For instance, *mbrɛ* 'rice' reflects the Written Tibetan 'bras, the cognate of which is pronounced as

[82] As discussed in §3.3.3, the cluster *mb* potentially results from both *Nb* and *mb* and is thus ambiguous. Such instances with labials are double listed in this grammar, taking *mC* as the default form.

ʈʂɛ in Contemporary Lhasa Tibetan. The consonant clusters are discussed further below.

Tables 14.7-14.13 below illustrate the attested C_pC_i consonant clusters in Tibetan loanwords:

Table 14.7. Examples of NC_i clusters in Tibetan loanwords

Cluster	Geshiza	Gloss	Tibetan	Gloss
nt^h	*nt^{h}æma*	despicable person	*mtha' ma*	last, end, finish
nd	*ndæmba*	mud, cement, plaster	*'dam bag*	mud, cement, plaster
ŋk^h	*ŋk^{h}ærlo*	corn sheller	*'khor lo*	wheel, machine
ŋg	*ŋgo*	boss, leader	*mgo*	head
ndz	*ndzu*	to be organised (gathering of monks)	*'dzugs*	to hold (meeting)
ntɕ^h	*ntɕ^{h}æn*	ceremonial dance	*'cham*	ceremonial dance
ndʑ	*ndʑælk^{h}a*	visit (e.g. monastery)	*mjal kha*	audience
ɳɖʐ	*ɳɖʐolu*	way of life	*'gro lugs*	way of life
ɲj	*ɲjɔ*	servant, serf	*g.yog*	servant

Table 14.8. Examples of mC_i clusters in Tibetan loanwords

Cluster	Geshiza	Gloss	Tibetan	Gloss
mn	*mna*	vow, oath	*mna'*	vow, oath
mɲ	*mɲæn*	to be equal, even	*mnyam*	even, equal, alike
mb	*mblərlən*	plane, to plane	*'bur len*	plane
mt^h	*mt^{h}ər*	reins, bridle	*mthur*	reins, bridle
md	*mda*	arrow	*mda'*	arrow
mk^h	*mk^{h}ær*	tower	*mkhar*	fort, citadel
mg	*ŋanæ**mgo***	New Year's Eve	*gnam gong*	New Year's Eve
mts^h	*mts^{h}o*	sea	*mtsho*	sea, ocean
mdz	*mdze*	to be beautiful	*mdzes*	to be beautiful
mtɕ^h	*mtɕ^{h}ærten*	stupa	*mchod rten*	stupa
mdʑ	*mdʑurten-me*	ordinary person	cf. ***'jig rten** pa*	ordinary person
mz	*gæmze*	Ganzi (toponym)	*dkar mdzes*	Ganzi (toponym)

The cluster *mdʑ* in Tibetan loanwords shows variation across neighbouring villages and even at village-internal level. While some speakers maintain non-assimilated pronunciations, such as *mdʑurten-me* 'ordinary person', *mdʑa* 'rainbow', others assimilate the preinitial in the clusters, making them essentially NC_i: *ndʑurten-me, ndʑa*.

Table 14.9. Examples of lC_i clusters in Tibetan loanwords

Cluster	Geshiza	Gloss	Tibetan	Gloss
lŋ	*snæ**lŋa***	five kinds	*sna lnga*	five kinds
lt	*ltəu*	to fold	*ltab*	to fold
lg	*lgupa*	ninth month	*dgu pa*	ninth

Table 14.10. Examples of rC_i clusters in Tibetan loanwords

Cluster	Geshiza	Gloss	Tibetan	Gloss
rm	*rmæbja*	peacock	*rma bya*	peacock
rɲ	*rɲoŋba*	old	*rnying pa*	old
rŋ	*rŋæmu*	camel	*rnga mong*	camel
rt	*rtæ-*	horse	*rta*	horse
rd	*rdævzə*	stone-mason	*rdo bzo*	stone-mason
rk	*rkæma*	hoe	*rko ma*	hoe
rg	*rgæn*	box, chest	*sgam*	box, chest
rts	*rtsæwa*	fundamental, primary	*rtsa ba*	root, fundamental
rdz	*rdzoŋ*	county	*rdzong*	fort, county
rtɕ	*rtɕɔpa*	dung, faeces	*skyag pa*	dung, faeces
rdʑ	*rdʑə*	property, wealth	*rgyu*	property, wealth

Table 14.11. Examples of vC_i clusters in Tibetan loanwords

Cluster	Geshiza	Gloss	Tibetan	Gloss
vt	*vtəl*	to subdue, vanquish	*btul*	conquered, subdued
vd	*vdə*	ogre, demon	*bdud*	demon
vk	*t^hæ**vk^{h}a***	hearth, fireplace	*thab kha*	hearth, fireplace
vts	*lævtse*	horn-like structures on the roof	*la btsas*	horn-like structures on the roof
vs	*vsæmba*	kindly feelings	*bsam pa*	earnest intention
vs^h	*sæ**vs^{h}oŋ***	smoke offering	*bsang*	smoke offering
vz	*vzə*	to fix, repair, make	*bzo*	make, create
vɕ	*vɕæ*	to speak, tell	*bshad*	to speak, tell
vɕ^h	*t^hæ**vɕ^{h}e***	way, method	*thabs shes*	way, method
vʑ	*vʑær*	to shave	*bzhar*	to shave

Table 14.12. Examples of s/zC$_i$ clusters in Tibetan loanwords

Cluster	Geshiza	Gloss	Tibetan	Gloss
sm	*smæn*	medicine	*sman*	medicine
sn	*smən*	oil	*snum*	oil
sɲ	*sɲane*	ritual name	*bsnyen gnas*	ritual name
sp	*spə*	animal fur	*spu*	fur, hair
st	*stɔ*	tiger	*stag*	tiger
zd	*zdær*	plate	*sder*	plate
sk	*sketɕ^{h}a*	Buddha	*skad cha*	speech, words
zg	*zgæŋa*	egg (folklore)	*sgo nga*	egg
stɕ	*stɕəpa*	people in the village	*spyi pa*	public
zdʑ	*zdʑər*	to change	*sgyur*	to change
zv	*zvær*	to light	*spar*	to light

Table 14.13. Examples of x/ɣC$_i$ clusters in Tibetan loanwords

Cluster	Geshiza	Gloss	Tibetan	Gloss
ɣm	*ɑ̱məmə*	soldier	*dmag mi*	soldier
ɣn	*ɑ̱næn*	sky	*gnam*	sky
ɣɲ	*ɑ̱ɲælvəu*	hell	*dmyal ba*	hell
xp	*ɑ̱pən*	chief, leader	*dpon*	chief, leader
xt	*ɑ̱to*	scripture recital ritual	*gto*	exorcise ritual
ɣd	*ɑ̱du*	umbrella	*gdugs*	umbrella
xts	*ɑ̱tsoŋ*	to be clean	*gtsang*	clean
xtɕ	*xtɕænzæn*	beast, wild animal	*gcan gzan*	beast, wild animal
ɣv	*ɑ̱voŋ*	supernatural power	*dbang*	power, control
xs	*ɑ̱sær*	gold	*gser*	gold
ɣz	*ɑ̱zupo ~ ɑ̱zupu*	body	*gzugs po*	body
ɣʑ	*ɑ̱ʑəmba*	young	*gzhon pa*	young

All attested C$_i$C$_m$ clusters in Tibetan loanwords are listed in Table 14.14:

Table 14.14. Attested C$_i$ C$_m$ clusters in Tibetan loanwords

C$_m$	Ci								
	p^h	b	k^h	g	v	s	z	ɣ	r
r		*br*	*k^{h}r*	*gr*		*sr*			
l					*vl*		*zl*	*ɣl*	*rl*
j	*p^{h}j*	*bj*						*ɣj*	

Table 14.15 below illustrates the attested C_iC_m consonant clusters in Tibetan loanwords:

Table 14.15. Examples of C_iC_m clusters in Tibetan loanwords

Cluster	Geshiza	Gloss	Tibetan	Gloss
br	*bræwə*	buckwheat	*bra bo, bra'o*	buckwheat
kʰr	*kʰrə*	ten thousand	*kʰri*	ten thousand
gr	*græ-pa*	novice	*grwa pa*	novice
sr	*sræn*	otter	*sram*	otter
vl	*vlo*	plan, intelligence	*blo*	plan, intelligence
zl	*zlæɕʰɔ*	leap month	*zla shol*	leap month
ɣl	*ɑlə*	mountain song	*glu*	song, tune
rl	*rloŋrta*	prayer flag	*rlung rta*	prayer flag
pʰj	*pʰjəpo*	rich person	*phyug po*	rich person
bj	*bjərə*	coral	*bju ru*	coral
ɣj	*ɑjɔ*	yak	*g.yag*	yak

Tibetan loans also include five attested three-member $C_pC_iC_m$ clusters. The inventory includes *mbr* (*mbrɛ* 'rice' < Tib. *'bras* 'rice'); *spr* (*spri-lə* 'year of the Monkey < Tib. *spre lo* 'year of the Monkey'); *zbr* (*zbra* 'yak hair tent' < *sbra* 'yak hair tent'); *vkr* (*vkræɕʰə* 'good luck, blessing, to bless' < Tib. 'good luck, fortune'); *spj* (*spjaŋkə* 'wolf' < Tib. *spyang ki* 'wolf'). In all, Tibetan loanwords cover only a subset of the available phonological and phonotactic space in Geshiza. This provides evidence for the old age of consonant clusters in the language. Rather than resulting primarily from Tibetan borrowing, consonant clusters in Geshiza are an inherited archaic feature that has been present in the language prior to interaction with speakers of Tibetan.

Semantic fields of Tibetan loanwords

Tibetan loans in Geshiza are predominantly nouns, with a small number of verbs attested: e.g. *ɖzɑ̈n* 'to remember, miss' < Tib. *dran* 'to remember, miss'; *ndʑər* 'to change' < Tib. *'gyur* 'to change, turn into'. The nominal Tibetan loanwords constitute of concepts adopted together with the technology or cultural ideas that were adopted into the speech community. These loanwords are generally called cultural borrowed forms or cultural loans in the literature (see e.g. Myers-Scotton 1993). It should be noted that rather than following a simple pattern of borrowing unidirectionally from the technologically more advanced Tibetans, borrowing in the Ethnic Corridor of Sichuan (see §1.2.1) exhibits more complexity. As illustrated by Suzuki (2009b), also many Tibetic languages have borrowed nouns, pronouns, and numerals from the non-Tibetic languages of the region.

Table 14.16 on page 729 illustrates cultural loans from Tibetan across their major semantic fields. The loanwords cover especially the following semantic fields: 1. raw materials;

2. plants; 3. wild animals; 4. domestic animals; 5. occupations; 6. religion; 7. other abstract concepts. Of these semantic fields, religion has especially received many loanwords from Tibetan, underlying the high influence of the Tibetan religions in the Geshiza community. The same phenomenon is attested in most minority languages of South-Western China where cultural interaction with Tibetan speakers has led to the adoption of cultural vocabulary.

Words for all the major metals, raw materials for manufacturing various objects, have been borrowed from Tibetan. The noun *tɕo* 'iron' iron appears to be an exception, since ordinary correspondencies would stipulate that the Tibetan *lcags* 'iron' appear as **tɕɔ*, an unattested form. Two explanations for this are offered. First, *tɕo* may originate from a different layer of Tibetan loanwords where different sound correspondencies operate. Second, instead of direct borrowing, the word may be borrowed through a mediating language.

Many plant names originate from Tibetan. These plants may be wild or cultivated agricultural plants, such as *mbrɛ* 'rice' < Tib. *'bras* 'rice'. This illustrates how prior to heavy interaction with the Han Chinese after the Qing dynasty migration waves (see §2.5.2), many agricultural innovations were adopted from the surrounding Tibetic speaking Tibetans.

The fields of both wild and domestic animals contain a large share of Tibetan loans. These have the following characteristics of immediate absence. First, Tibetan loans of wild animals commonly denote animals that play no prominent roles in the immediate ecological environment of the Geshiza, such as *sʰeŋgi* 'lion' < Tib. *seng ge* 'lion' completely absent from the Geshiza homeland. Second, in a similar fashion, many domestic animals known primarily through a Tibetan loan are absent among contemporary Geshiza: e.g. *ajɔ* 'yak' < Tib. *g.yag* 'yak'. In sum, both cases illustrate how Tibetan terms have been borrowed for animals that Geshiza speakers are clearly aware of and yet mostly lack a direct interaction with.

Interaction with Tibetic speaking Tibetans also led to the diversification of available professions. A part of such introduced new jobs includes *æne* 'nun' < Tib. *a ni* 'nun'; *ɑ̯mɔmə* 'soldier' < Tib. *dmag mi* 'soldier'; and *smænba* 'doctor' < *sman pa* 'doctor'. Similarly, introduction of Tibetan Buddhism greatly influenced Geshiza lexicon: e.g. *sʰoŋrdʑe* 'enlightened being, Buddha' < Tib. *sangs rgyas* 'enlightened being, Buddha''. Finally, Tibetan origin is also visible in some nouns denoting abstract concepts, the finer subdivisions of which are not discussed here.

Table 14.16. Examples of loanwords in Geshiza by their semantic categories

Semantic Field	Geshiza	Gloss	Tibetan	Gloss
1. Raw materials	*ʂasær*	gold	*gser*	gold
	dʐæne	lead	*zha ne*	lead
	rŋən	silver	*dngul*	silver
	rɔ	brass	*rag*	copper, brass
	zoŋ	copper	*zangs*	copper, brass
2. Plants	*bræwə*	buckwheat	*bra bo or bra'o*	buckwheat
	kʰæmtɕər	sour apricot	*kham skyur*	sour apricot
	mætɔ ~ mətɔ	flower	*me tog*	flower
	mbrɛ	rice	*'bras*	rice
	tsoŋ	green onion	*tsong*	(green) onion
3. Wild animals	*rədɔ*	beast	*ri dags*	beast
	spjaŋkə	wolf	*spyang ki*	wolf
	sræn	otter	*sram*	otter
	stɔ	tiger	*stag*	tiger
	sʰeŋgi	lion	*seng ge*	lion
4. Domestic animals	*ʂjɔ*	yak	*g.yag*	yak
	dʐi	mule	*drel*	mule
	maxe	water buffalo	*ma he*	water buffalo
	rŋæmu	camel	*rnga mong*	camel
	rtæpʰo	stallion	*rta pho*	stallion
5. Occupations	*amɔmə*	soldier	*dmag mi*	soldier
	goŋma	emperor	*gong ma*	emperor
	rdævzə	stone mason	*rdo bzo*	stone mason
	rkəmæ	thief	*rku ma*	thief
	smænba	doctor	*sman pa*	doctor
6. Religion	*ʂjoŋdoŋ*	swastika sign	*gyung drung*	swastika sign
	mtɕʰærten	stupa	*mchod rten*	stupa
	rgəmbəu	monastery	*dgon pa*	monastery
	rloŋrta	prayer flag	*rlung rta*	prayer flag
	tɕʰue	religion, dharma	*chos*	religion, dharma
7. Other abstract concepts	*bjaŋ*	north	*bjang*	north
	goŋ	price	*gong*	price
	mna	vow, oath	*mna'*	vow, oath
	ŋdʐolu	way of life	*'gro lugs*	way of life
	pʰæntʰɔ	benefit	*phan thogs*	benefit

While many Tibetan loanwords are verbs, Geshiza has also borrowed many verbs. Tibetan transitive verbs have maximally four stems traditionally labelled *da lta ba* 'present, *'das pa* 'past', *ma 'ongs pa* 'future', and *skul tshig* 'imperative' by Tibetan grammarians, intransitive verbs lacking future or imperative stems (Beyer 1992: 163; see also Hill 2010 for critique of the classification). In analysing borrowed Tibetan verbs in Geshiza, it is consequently of interest to observe the stems that have been borrowed into Geshiza (see Jacques 2003 for a similar analysis in Japhug Gyalrong, used as a model for Geshiza here).

Table 14.17. Borrowed Tibetan verbs in Geshiza

Geshiza		Tibetan				
Verb	Gloss	Present	Past	Future	Imperative	Gloss
ʂ̱su (V4)	to raise	***gso***	***gsos***	n/a	n/a	to raise
vtəl (V4)	to tame	*'dul*	***btul***	*gdul*	*thul*	to tame
ɲtʰɔ (V3b)	to weave	***'thag***	*btags*	*btag*	*thogs*	to weave
rkə (V3b)	to steal	***rku***	***brkus***	***brku***	***rkus***	to steal
rtsi (V3b)	to count	***rtsi***	***brtsis***	***brtsi***	***rtsis***	to count
stɕe (V2b)	to be born	***skye***	***skyes***	n/a	n/a	to be born
vɕæ (V3b)	to speak	*'chad*	***bshad***	***bshad***	*shod*	to speak
vzə (V3b)	to make	***bzo***	***bzos***	n/a	n/a	to do
vʑær (V3b)	to shave	*gzhar*	***bzhar***	***bzhar***	*bzhor*	to shave
zla (V3b)	to recite	*zlo*	***bzlas***	***bzla***	*zlos*	to recite
zvær (V3b)	to light	*spor*	***spar***	***spar***	*spor*	to light

A sample of verbs borrowed from Tibetan is given in Table 14.17 above. Potential Tibetan source stems are indicated in bold. Since Geshiza phonotaxis imposes heavy restriction on final consonants (see §3.3.3) and several consonant cluster types existing in Tibetan are absent from the language, many cases are ambiguous. Also, Tibetan intransitive verbs having maximally two forms, e.g. *skye* 'to be born', serve badly for determining the source stem. In transitive verbs, imperative is never the only possible source for a borrowed verb and can be discarded, leaving the present, past, and future as viable options. While technically possible, none of the verbs in Geshiza lexicon can be shown to be unambiguously borrowed from the future stem. This leaves two major candidates: the present and past stems. For instance, *vtəl* (V4) 'to subdue, vanquish, tame' can only originate from the past stem *'dul* of its Tibetan source. Conversely, *ɲtʰɔ* (V3b) 'to weave' must have been borrowed from the present stem *'thag*. In sum, most Tibetan loanword verbs originate from these two stems, the past tense appearing preferred. This corresponds to Jacques's (2003) findings and may indicate layering of Tibetan loanwords, as the author proposes in the context of Japhug.

Further research

Future research on Geshiza loanwords should focus on establishing loanword layers, a task not attempted in the confines of this grammatical sketch. Clearly, not all Tibetan loanwords have entered the language at the same time, but form layers that require more research. An interesting case is *bkra shis* that has been borrowed twice into Geshiza. The conservative phonological form is *vkrætɕʰə* 'blessing, to bless, make auspicious' < Tib. *bkra shis* 'good, luck, auspiciousness', also used as a name. The later more simplified phonological form is *ʈʂaɕʰi*, also used as a personal name and in the name of Buke monastery, *ʈʂaɕʰi-rintɕʰin-ɑ̱lan* built approximately 300 years ago (see §2.7.1. *Tibetan Buddhism*).

Comparative research will likely prove to be fruitful in analysing Tibetan loanword layers. In other words, comparing Tibetan loanwords in other Horpa languages helps in establishing whether such words have entered the languages at the level of a common meso-language or have been borrowed individually in later stages. Knowledge of such issues will undoubtedly shed more light on the issue of historical interaction between Horpa speakers and Tibetic speaking Tibetans.

14.3.2. Chinese loanwords

Chinese loanwords are omnipresent in contemporary Geshiza and the lexicon of the language is becoming rapidly Sinicised due the high influx of new Chinese loanwords. Code-switching is rampant, which makes differentiating *ad hoc* loans and established loanwords a challenging task. Unlike vis-à-vis Tibetan loanwords, some speakers hold a prescriptive stance against Chinese loanwords, insisting that they are not a real part of the language. In its more extreme form, some speakers state that such words should be avoided when speaking. At the same time, paradoxically hardly any effort is made to end or diminish the use of these loans.

Chinese loanwords typically originate from the regional variant of Sichuanese Mandarin, an understudied Sinitic language or dialect that functions as an interethnic lingua franca. In recent times, exposure to Standard Chinese, especially among the youth, is opening a new pathway for code switching and lexical borrowing.

In addition to the exposure for the spoken language, writing plays a role as well. At the idiolectal level, Geshiza speakers adopt new lexical items based on their interpretation of the Chinese characters, which sometimes differs from established readings. For instance, a consultant in her thirties uses *tiænpintæn* 'electric baking pan' as a borrowing for 电饼铛 that is commonly read as *diànbǐngchēng* 'electric baking pan' in Standard Chinese. The reading *tæn* for the last character 铛 is easily explained due to the use of 当 as a phonetic complement for dang in Chinese characters. It remains to be seen how widely similar innovations spread and establish themselves among the communities. In any case, reaching the status of stable loanwords seems unlikely. The current process towards standardisation carried out by educational institutions is weeding out such local innovations and results in heavier Standard Chinese influence in Geshiza, a theme discussed in §2.9.4 in detail.

In terms of their parts of speech, Chinese loanwords tend to arrive as nouns. Like the native lexical items, Chinese noun loans can host the case enclitics: *jænse* 'colour', *jænse=jə* (colour=PL) 'colours'. Chinese loanwords, however, differ in their phonological properties from the nativised lexicon, an issue discussed below.

The present sketch proceeds from monophthongs and diphthongs to consonants, ending with rimes.

Vowels

Illustrated in Table 14.18 below, items in the Chinese lexical register exhibit all allowed Geshiza phonemic vowels except /ɔ/. The marginal vowels /y/ and /ɛ/ (see §3.2.1) are also present. The absence of /ɔ/ is not surprising, since in many instances, it surfaces in Tibetan loans (see §3.2.1) and is absent from both Standard and Sichuanese Mandarin. Also, the marginal vowel [ɛ] and its diphthongised variant [ɛi̯] (see §3.2.1) in many Chinese loanwords reflect a local Danba Chinese pronunciation that corresponds to /ai/ in Standard Mandarin.

Table 14.18. Examples of monophthongs in the Chinese lexical stratum

Vowels	Example	Chinese source
/i/	*jime* 'corn'	*yùmǐ* 玉米 'corn'
/y/ (marginal vowel)	*xontɕyn* 'Red Army'	*hóngjūn* 红军 'Red Army'
/e/	*tɕetɕe* 'older sister'	*jiějie* 姐姐 'older sister'
/ɛ/ (marginal vowel)	*xɛ* 'shoe'	*xié* 鞋 'shoe'
/æ/	*læn* to break, go bad'	*làn* 烂 'to be bad, rotten'
/a/	*jap^{h}iæn* 'opium'	*yāpiàn* 鸦片 'opium'
/ə/	*sə* 'four'	*sì* 四 'four'
/o/	*koko* 'older brother'	*gēge* 哥哥 'older brother'
/u/	*ju* 'oil'	*yóu* 油 'oil'

The seven Chinese loanword diphthongs consist of two subgroups: six rising diphthongs and two falling diphthongs, illustrated in Table 14.19 on the following page. The rising diphthongs are opening (*uæ, ua, iæ, ia, yæ*) and height-harmonic (*ui*) while the falling diphthongs are height-harmonic (*iu*) and closing (*əu*). Unlike in Standard Mandarin, the vowels /e/ and /o/ do not operate in diphthong formation in Chinese loanwords.

In addition to the monophthongs discussed above the triphthong /iəu/ is present in Chinese loans: *p^{h}iəutsə* 'money' < *piàozi* 票子 'bank note, money'. This results from the interpretation of not positing consonant clusters for Chinese loanwords, discussed below.

Table 14.19. Chinese loanword diphthongs in Geshiza

Diphthong	Example	Chinese source
ui	*wɛkui* 'foreign country'	*wàiguó* 外国 'foreign country'
ue	*fæntɕʰue* 'tomato'	*fānqié* 番茄 'tomato'
uæ	*kuænɕi* 'relationship'	*guānxi* 关系 'relationship'
ua	*xuasən* 'peanut'	*huāshēng* 花生 'peanut'
iu	*niuɕʰo* 'study abroad'	*liúxué* 留学 'to study abroad'
ie	*tɕʰintʰie* 'invitation card'	*qǐngtiě* 请帖 'invitation card'
iæ	*tiæn* 'electricity'	*diàn* 电 'electricity'
ia	*nian* 'two'	*liǎng* 两 'two'
yæ	*juarjyæn* 'kindergarten'	*yòu'éryuán* 幼儿园 'kindergarten'
əu	*ʈʂəu* 'photo'	*zhào* 照 'photo'

Consonants

The Chinese loanwords use a subset of all available Geshiza consonants, as shown in Table 14.20. below. Alternation between /n/ and /l/ is attested in Chinese loanwords, /n/ commonly surfacing in lieu of Standard Mandarin /l/ (see §3.4.3). In established old loans, however, /l/ is never replaced with /n/: *læn* vs. **næn* 'to broke, go bad' < Ch. *làn* 烂 'to be bad, rotten'; *læbə* vs. **næbə* 'radish' < Ch. *luóbo* 萝卜 'radish'.

Table 14.20. Consonant inventory present in Chinese loanwords

Type	Bilabial	Labio-dental	Dental-alveolar	Alveolo-palatal	Retroflex	Palatal	Velar	Uvular
Plosives	*p*		*t*				*k*	~~*q*~~
	pʰ		*tʰ*				*kʰ*	~~*qʰ*~~
	b		*d*				*g*	
Affricates			*ts*	*tɕ*	*ʈʂ ~ ʈ*			
			tsʰ	*tɕʰ*	*ʈʂʰ ~ ʈʰ*			
			dz	*dʑ*	~~*(dʐ ~ ɖ)*~~			
Fricatives		*f*	*s*	*ɕ*	*ʂ*		*x*	
			~~*(sʰ)*~~	*ɕʰ*				
		~~*(v)*~~	~~*(z)*~~	~~*(ʑ)*~~			~~*(ɣ)*~~	
Nasals	*m*		*n*			*ɲ*	*ŋ*	
Approx.	*w*		*l*		*r*	*j*		

Table 14.21 below illustrates the range of consonant phonemes present in Chinese loanwords:

Table 14.21. Examples of Consonants in the Chinese loanwords

Consonant	Example	Chinese source
/p/	*pænfa* 'way, method'	*bànfǎ* 办法 'way, method'
/pʰ/	*pʰutʰəu* 'grapes'	*pútao* 葡萄 'grapes'
/b/	*bedʑin* 'Beijing'	*běijīng* 北京 'Beijing'
/t/	*tuərtsə* 'only son'	*dú'érzi* 独儿子 'only son'
/tʰ/	*tʰan* 'soup'	*tāng* 汤 'soup'
/d/	*ʈʂʰəndu* 'Chengdu' (toponym)	*chéngdū* 成都 'Chengdu'
/k/	*kandzə* 'mug'	*gāngzi* 缸子 'mug'
/kʰ/	*kʰɛxui* 'meeting'	*kāihuì* 开会 'to hold, attnd a meeting'
/g/	*pʰuge* 'quilt, bedclothes'	*pūgai* 铺盖 'bedding, bedclothes'
/ts/	*tsətsʰə* 'support(ing)'	*zhīchí* 支持 'support'
/tsʰ/	*tsʰəuməu* 'straw hat'	*cǎomào* 草帽 'straw hat'
/dz/	*tondzə* 'tunnel, cave'	*dòngzi* 洞子 'cave'
/tɕ/	*tɕetɕe* 'older sister'	*jiějie* 姐姐 'older sister'
/tɕʰ/	*tɕʰetsə* 'eggplant'	*qiézi* 茄子 'eggplant'
/dʑ/	*fidʑi* 'airplane'	*fēijī* 飞机 'airplane'
/ʈʂ/	*ʈʂotsə* 'table'	*zhuōzi* 桌子 'table'
/ʈʂʰ/	*ʈʂʰaŋko* 'song'	*chànggē* 唱歌 'to sing a song'
/f/	*fakʰuæn* 'fine (monetary)'	*fákuǎn* 罚款 'fine'
/s/	*sənrə* 'birthday'	*shēngrì* 生日 'birthday'
/ɕ/	*ɕijitɕi* 'washing machine'	*xǐyījī* 洗衣机 'washing machine'
/ɕʰ/	*xuaɕʰo* 'chemical, fertiliser'	*huàxué* 化学 'chemical'
/ʂ/	*ʂuini* 'concrete'	*shuǐní* 水泥 'concrete'
/x/	*xoko* 'hotpot (food)'	*huǒguō* 火锅 'hotpot'
/m/	*motʰo* 'motorbike'	*mótuō* 摩托 'motorbike'
/n/	*niuɕʰosən* 'exchange student'	*liúxuéshēng* 留学生 'exchange student'
/ɲ/	*fuɲe* 'migrant labour'	*fùyè* 副业 'side occupation'
/ŋ/	*ŋæn* 'installing'	*ān* 安 'to fix, install'
/w/	*watsə* 'sock'	*wàzi* 袜子 'socks'
/l/	*læbə* 'radish'	*luóbo* 萝卜 'radish'
/r/	*rən* '(official) recognition'	*rèn* 认 'to recognise'
/j/	*jantsʰon* 'onion'	*yángcōng* 洋葱 'onion'

Chinese voiceless non-aspirated plosives and affricates are generally borrowed identically into Geshiza: e.g. *yatsə* 'duck' < Ch. *yāzi* 鸭子 'duck'. In a minority of cases, the Geshiza result is voiced: e.g. *pūgai* (Standard Chinese [pʰukæi̯]) 铺盖 'bedding, bedclothes' > *pʰuge* 'quilt (for sleeping), bedclothes'. Since the phonological environment alone cannot explain the distinct behaviour, these loanwords likely represent different borrowing layers into Geshiza. Furthermore, since Chinese loanwords have been borrowed in several layers, there is not always a predictable mapping between Chinese and Geshiza. To illustrate, even though the Chinese *zhuōzi* 桌子 'table' has been borrowed into Geshiza as *ʈsotsə* 'table', *zhīchí* 支持 'support' appears as *tsətsʰə* 'support(ing)', not as **ʈsəʈsʰə*. Factors leading to such behaviour, such as differences in borrowing time, consequently require more research.

Issue of consonant clusters in Chinese loanwords

At present stage, the issue of consonant clusters in Chinese loanwords remains unsettled due to interspeaker variation. An analysis of young speakers' speech gives no need to posit clusters for Chinese loanwords. Cj and cluster types *mɲ*, however, must be posited at least for some elderly speakers for the following reason. As discussed in §3.3.3, the clusters *mɲ* and *mj* are in free variation in Geshiza. Some Geshiza speakers with a lower level of command Chinese use the former in Chinese loanwords: e.g. *mɲæn* 'noodles' < *miàn* 面 'noodles', a borrowed variant for the native Geshiza *a̱mele* 'noodles'. While the pronunciation *mjæn* is open both to a cluster and diphthong interpretation phonologically, *mɲæn* is clearly not, and can only be seen as a consonant cluster. The non-clustered pronunciation of the younger generations is adopted here as the orthographical standard.

Rimes

In addition to simple rimes ending in an open syllable with either a monophthong or a diphthong, Table 14.22 on the following page lists the attested rime types of Chinese loanwords in Geshiza. The allowed syllable structures in the Chinese loans are CV where V can be a monophthong, diphthong, or the triphthong /iəu/ or CVC where V is either a monophthong or a diphthong and the coda C either /n/ or /r/. The coda /ŋ/ present in Standard Mandarin is not attested in Chinese loans of Geshiza. In all, the phonotactic simplicity contrasts with the complex syllable structure of the nativised lexicon.

Table 14.22 below shows the types of rimes present in Chinese loanwords:

Table 14.22. Rimes in Chinese loanwords

Rime	Example	Chinese source
-in	*tin* 'ordering'	*dìng* 订 'to order'
-æn	*læn* 'to break, go bad'	*làn* 烂 'to be(come) bad'
-ən	*rən* 'recognition'	*rèn* 认 'to recognise'
-an	*ɕan* 'township'	*xiāng* 乡 'township'
-on	*jon* 'use, using'	*yòng* 用 'to use'
-un	*tɕexun* 'wedding'	*jiéhūn* 结婚 'to marry'
-ar	*ar* 'two'	*èr* 二 'two'
-ər	*ləupər* 'shopkeeper, shop boss'	*lǎobǎr* 老板儿 'shopkeeper, shop boss'
-uæn	*kuænɕi* 'relationship'	*guānxi* 关系 'relationship'
-uan	*kuan* 'strolling'	*guàng* 逛 'to stroll'
-iæn	*tiæn* 'electricity'	*diàn* 电 'electricity'
-ian	*nian* 'two'	*liǎng* 两 'two'

Semantic fields of Chinese loanwords

Table 14.23 on the following page illustrates cultural loans from Chinese across their major semantic fields. Chinese cultural loans in Geshiza cover especially the following semantic fields: 1. food and plants; 2. transport; 3. machines and electronics; 4. tools and instruments; 5. clothes; 6. places and institutions; 7. politics; 8. education, and 9. other abstract concepts.

Many of the loanwords refer modern objects and concepts that have been introduced relatively recently by the Chinese. The common denominator for most of these concepts is that the loanwords have been adopted together with the objects they represent. Modernisation carried out by the Chinese state and increased interaction with Han Chinese has led to a drastic increase of Chinese elements in the language in recent times.

Food and plants constitutes a major field in which Chinese loanwords are heavily present. Han Chinese migrations into inner Sichuan during the Qing dynasty led to the introduction of many new agricultural plants previously largely unknown among the Geshiza and other minor peoples of Western Sichuan (see §2.5.2), such as *joŋji* 'potato' < Ch. *yángyù* 洋芋 'potato'. Geshiza cuisine, too, has been greatly influenced by that of the surrounding Han Chinese of Sichuan.

Prior to modern means of transport, the rich rode and the commoners walked. The recent decades have nevertheless seen a great influx of modern means of transport, be it cars, buses, motorbikes, or even electronic bicycles. All such means of modern transport have been borrowed through interaction with Han Chinese and thus carry a Chinese name, e.g. *ʈsʰetsə* 'car' < Ch. *chēzi* 车子 'car'.

Interaction with Han Chinese is clearly visible in adopted new tools, clothes, and their respective names: *taxotɕi* 'lighter' < *dǎhuǒjī* 打火机 'lighter', *məuji* '(wool) sweater' < *máoyī* 毛衣 '(wool) sweater'. The incorporation of Geshiza lands into the PRC also resulted in introduction of new institutions, such as *pʰeʈʂʰuso* 'police station' < Ch, *pàichūsuǒ* 派出 'police station'.

The imposition of the new political order lead to heavy borrowing of political terms, many of which are used to express notions related to the Communist party, e.g. *kæmpu* '(party) cadre' < Ch. *gànbu* 干部 '(party) cadre'. At the same time, the new universal Chinese education system is reflected in a large influx of education-related words into Geshiza: *tsoɲe* 'homework < *zuòyè* 作业 homework.

Table 14.23. Loanwords in Geshiza by their semantic categories

Semantic Field	Geshiza	Gloss	Chinese	Gloss
1. Food and	*ɕifæn*	porrigde	*xīfàn* 稀饭	porridge
plants	*jime*	corn	*yùmǐ* 玉米	corn
	pʰinko	apple	*píngguǒ* 苹果	apple
	təfu	tofu	*dòufu* 豆腐	tofu
	xoko	huoguo, hotpot	*huǒguō* 火锅	huoguo, hotpot
2. Transport	*maʈʂʰe*	horse cart	*mǎchē* 马车	horse cart
	motʰo	motorbike	*mótuō* 摩托	motorbike
	pʰikʰaʈʂʰe	pickup truck	*píkǎchē* 皮卡车	pickup truck
	ʈʂʰetsə	car	*chēzi* 车子	car
	ʈʂʰuæn	boat, ship	*chuán* 船	boat, ship
3. Machines	*ɕijitɕi*	washing machine	*xǐyījī* 洗衣机	washing machine
and electronics	*fatiæntɕi*	power generator	*fādiànjī* 发电机	power generator
	tiænləu	computer	*diànnǎo* 电脑	computer
	tiænʂə	television	*diànshì* 电视	television
	tiænxua	telephone	*diànhuà* 电话	telephone
4. Tools and	*laʈʂu*	candle	*làzhú* 蜡烛	candle
instruments	*losə*	screw	*luósī* 螺丝	screw
	pi	pen	*bǐ* 笔	pen
	taxotɕi	lighter	*dǎhuǒjī* 打火机	lighter
	tiæntən	lamp	*diàndēng* 电灯	lamp
5. Clothes	*məuji*	(wool) sweater	*máoyī* 毛衣	(wool) sweater
	pʰite	belt	*pídài* 皮带	belt
	xɛ	shoes	*xié* 鞋	shoes
	xɛtɛ	shoelace	*xiédài* 鞋带	shoelace
	watsə	socks	*wàzi* 袜子	socks

6. Places and institutions	*ɕʰoɕʰəu*	school	*xuéxiào* 学校	school
	juarjyæn	kindergarten	*yòu'éryuán* 幼儿园	kindergarten
	pʰeʈʂʰuso	police station	*pàichūsuǒ* 派出所	police station
	tsʰeʂəʈʂʰan	vegetable market	*càishìchǎn* 菜市场	vegetable market
	ʂeʈʂʰan	public square	*shèchǎng* 社场	public square
7. Politics	*kæmpu*	(party) cadre	*gànbù* 干部	(party) cadre
	konʈʂʰantan	Communist Party	*gòngchǎndǎng* 共产党	Communist Party
	taŋjyæn	party member	*dǎngyuán* 党员	party member
	tsʰunʈʂan	village chief	*cūnzhǎng* 村长	village chief
	tɕefæn	Liberation	*jiěfàng* 解放	Liberation
8. Education	*ɕʰoɕʰəu*	school	*xuéxiào* 学校	school
	ləusə	teacher	*lǎoshī* 老师	teacher
	niuɕʰo	study abroad	*liúxué* 留学	to study abroad
	sænniæntɕi	third grade	*sānniánjí* 三年级	third grade
	tsoŋe	homework	*zuòyè* 作业	homework
9. Other abstract concepts	*ɕintɕʰi*	week	*xīngqī* 星期	week
	kuænɕi	relationship	*guānxi* 关系	relationship
	tɕʰinkʰuan	situation	*qíngkuàng* 情况	situation
	ʈʂʰaŋko	song	*chànggē* 唱歌	to sing a song
	witəu	smell, taste	*wèidao* 味道	smell, taste

Special characteristics of Chinese loans

In addition to borrowing nouns from Chinese, Geshiza has also borrowed many Chinese verbs. Since the original verbs in general enter the language as nouns, they must be accompanied by the native light verb *və* to (V3b ~ V4)'do' (see §4.3.7.1), forming complex predicates. This is illustrated in Table 14.24, examples (14.1) and (14.2) given on the following page. Such borrowing is extremely common on *ad hoc* basis, and the elderly sometimes lamented to the author when the young create a light verb construction with a Chinese loanword where a native Geshiza term already exists.

Some younger speakers now prefer many complex predicates over existing simple Geshiza predicates: *rŋu* 'to fry, stir-fry'; *ʈʂʰəu və* (frying LV:do) 'to fry' < *chǎo* 炒 'to stir-fry'. In rarer occasions, multiple constituents are replaced by a newly-coined complex predicate: *ʈʂʰetsə rɣi* (car to.wash) 'to wash the car'; *ɕiʈʂʰe və* (car-wash LV:do) 'to wash the car' < *xǐ chē* 洗车 (to.wash car) 'to wash the car'. Importantly, this behaviour likely predicts some aspects of Geshiza predicates' future development. As a well-known example, Hindi(-Urdu) massively borrowed Persian predicates in the 17-18th centuries through the light verb strategy that used to be marginal or even absent in some earlier stages of the language, which was eventually

responsible or at least instrumental for typological changes that the language came to witness (Montaut 2016: 171). Complex predicates are now ubiquitous in the language. In a similar vein, complex predicates due to language contact with Chinese are now growing rapidly in Geshiza, to the extent that this eventually likely leads to oblivion of some simple predicates among the younger generations.

Table 14.24. Sample of Chinese verbs borrowed as nouns for forming complex predicates

Chinese loan with the light verb	Gloss	Chinese original	Gloss
ɕapæn və	to finish work	*xiàbān* 下班	to finish work
ɕekʰe	to thank visitors	*xièkè* 谢客	to thank visitors
fa və	to send	*fā* 发	to send
fatiæn və	to generate electricity	*fādiàn* 发电	to generate electricity
fantɕa və	to have a holiday	*fàngjià* 放假	to have a holiday
jinʈʂʰe və	to feel carsick	*yùnchē* 晕车	to feel carsick
jon və	to use	*yòng* 用	to use
kɛ və	to change, alter	*gǎi* 改	to change, alter
kosənxo və	to live, make a living	*guò shēnghuó* 过生活	to live
kuæntɕi və	to turn off (a gadget)	*guānjī* 关机	to turn off (a gadget)
lu və	to record	*lù* 录	to record
ŋænʈuan və	to install	*ānzhuāng* 安装	to install
rən və	to recognise (as sth)	*rèn* 认	to recognise (as sth)
ʂanko və	to attend classes	*shàng kè* 上课	to attend classes
tafu və	to answer, reply	*dáfù* 答复	to answer, reply
təu və	to back (e.g. a car)	*dào* 倒	to move backwards
tiəu və	to transfer	*diào* 调	to transfer
tija və	to put up collateral	*dǐyā* 抵押	to put up collateral
tin və	to order	*dìng* 订	to order
tʰuiɕu və	to retire	*tuìxiū* 退休	to retire
tsətsʰə və	to support	*zhīchí* 支持	to support
tɕænʈʰa və	to inspect, examine	*jiǎnchá* 检查	to inspect, examine
tɕipʰjəu və	to count votes	*jìpiào* 计票	to count votes
ʈʂunpe və	to prepare	*zhǔnbèi* 准备	to prepare
ʈʂʰəu və	to stir-fry	*chǎo* 炒	to stir-fry
xuifu və	to rehabilitate	*huīfù* 恢复	to rehabilitate

(14.1) *təu və* ‘to back’ < *dào* 到 ‘to back’:

ɣæ	*dæ-tɕu*	*wə-ɕʰoŋ.*	*<ʈʂʰetsə>*	***<təu>***
gate	PFV-open.PST.1SG	PFV.DIR-go.PST.1SG	car	**backing**

dæ-vu.
PFV-LV:do.1SG
I opened the gate and went out. I backed the car (out from the inner yard). (RN; chronicle)

(14.2) *ton və* ‘to make use of’ < *dòng* 动 ‘to move, make use of’:

ŋæ=tsʰe	*<pʰiəutsə>=ke*	***<ton>***	***mi-van=gæ,***	*æ-ŋuə-ræ.*
1=ASS.GEN	money=DAT	**moving**	**NEG-LV:do.1PL**=MOD	Q-COP.3-SENS

We will not use our own money (but a bank loan), right? (RC)

Few noun-verb combinations that have been borrowed from Chinese, however, do not take the light verb *və*. For instance, *tiænxua v-ra* ‘to call by phone’ has the light verb *v-ra* (V3a) ‘to hit’ (14.3). The verb selection results from calque borrowing from Chinese: *dǎ diànhuà* 打电话, literally ‘to hit the phone’. Furthermore, the Geshiza everyday lexicon has several verbs that have been borrowed into the language from Chinese without the addition of the light verb: *làn* 烂 ‘worn-out, rotten’ > *læn* (V1b) ‘broken’; *hǎo* 好 ‘to be good’ > *xəu* (V1b) ‘to be good’. Such verbs can take the orientational prefixes like native verbs and have thus been more tightly integrated into the language than the loanwords requiring the light verb *və* (14.4, 14.5):

(14.3) *tiænxua v-ra* (N, V3a) ‘to call by phone’ < *dǎ diànhuà* 打电话 ‘to call by phone’:

<tiænxua>	***rɛ=jɔ,***	*ŋgərə(=ke).*[83]
phone	**LV:hit.2SG**=Q	PN(=DAT)

Are you calling *ŋgərə*? (RC)

(14.4) *læn* (V1b) ‘to break, go bad’ < *làn* 烂 ‘worn-out, rotten’:

tɕæ-wo	*<ʈʂʰetsə>*	***dæ-<læn>.***
ROAD-SUPE	car	**PFV-break**

The car broke on the road. (RN; chronicle)

(14.5) *xəu* (V1b) ‘to be good’ < *hǎo* 好 ‘to be good’:

ætɕʰəroro=je,	*ste=je*	*ætɕʰəroro*	*kʰɔ~kʰɔ*	*<tʰiəutɕæn>*
everything=GEN	everyone=GEN	everything	RED~INTERJ	conditions

[83] The dative commonly coding the recipient added by the consultant afterwards.

gæ-<xəu>.
IPFV-be.good
Everyone lives in good conditions now (in contrast to the hard past). (lit. Everyone's everything, the conditions are good.) (RN: interview)

Because of the long-lasting interaction between the Chinese and Geshiza speakers, even some function words have been borrowed from Chinese, a partial list of examples given in Table 14.25. This is especially prevalent in classifiers. Not every speaker accepts them as part of the 'true lexicon of Geshiza'. Nevertheless, regardless of prescriptive views, both young and old Geshiza use such function words of Chinese origin in everyday speech. In the examples presented in this section, all Chinese loanwords appear in bold. In all, the influence of Chinese is not restricted to content words, but goes far deeper to the functional core of the language. See also §2.9.4 where linguistic change and the future of Geshiza is discussed.

Table 14.25. Examples of function words borrowed from Chinese

Geshiza	Gloss	Chinese	Gloss
fæntʂən	anyway, in any case	*fǎnzhèng* 反正	anyway, in any case
kʰonen	maybe	*kěnéng* 可能	maybe
tako	CLF for big cauldrons	*dàguō* 大锅	cauldron
tsʰonlɛ	never	*cónglái* 从来	always, never
xɛʂə	various discourse functions	*háishi* 还是	or, still, nevertheless

(14.6)

tsələ=wo	*vdzi=ke=ræ*	*ə*	*dæ-rtɕæ*	*tɕʰa*	*xaræ*
cat=ERG	person=DAT=LNK	HES	PFV-bite.PST.3	COND	CONJ

bɔtʰu=tɕe=ræ	*xaræ*	*ruə=tʰə*	*ruloŋ*	*və*
like.ERG=INSTR=LNK	CONJ	body=TOP	ro.langs	LV:do.3

g-ə-jə-me	*dæ-ŋuə.*	*oja*	*ŋuə=za*	*mŋa=tʰə*
PREF-NACT-say.3-NMLZ:P	PFV-COP.3	INTERJ	COP.3=Q	NEG.COP.3=TOP

mə-san-ræ	*sʰo*	*ŋæ=ɲu=be*	*bɔtʰə*	***<tsʰonlɛ>***	*dæ-vdoŋ*
MOD.NEG-know.NPST.1SG	DM	1=PL.ERG=too	like.that	**never** 从来	PFV-see.1PL

mi-zda.	**<fæntʂən>**	*tʰə*	**<ʈʂʰuænʂo>**	*ŋuə-me-ɣa*	*ŋuə-ræ.*
NEG-AUX.EXP.PERF	**in.any.case**	DEM	**legend**	COP-NMLZ:S-POT	COP.3-SENS
	反正		传说		

If a cat bites a person, like that, the body (of that dead person bitten) turns into *a ro langs* zombie. We don't know if this is true or nor. We have never seen things like this. In any case, it is possibly a legend. (RN: anthropological description; see §2.4.4 and §2.7.2 for *ruloŋ*)

(14.7)

<kʰonen>	*ɛ*	**<wu-tɕi>**	*<niæn>,*	**<wu-tɕi>**	*<niæn>*
maybe	INTERJ	**fifty-several**	**year**	**fifty-several**	**year**
可能		五几	年	五几	年

æmæ *ŋuə-ræ.*
maybe COP.3-SENS
Perhaps, this was in the 50s, maybe in the 50s. (RN: local history)

Chinese loanwords triggering code switching

Borrowing and code switching exist in a cline in Geshiza. The presence of Chinese loanwords may function as a trigger for code switching. Since the pioneering studies in code switching, it has been argued that the switching can be motivated by triggers present in the discourse (see Clyne 1967). For instance, in example (14.8), the conceptual domain of time that is often discussed with Chinese loanwords triggers the initial code switching into Chinese. While the expressions of time have become firmly established as loans, *takʰɛ ŋo kʰæn* can only be characterised as code switching at the current stage. However, *ŋo kʰæn* occasionally appears when the speaker performs mental calculus concerning time, illustrating how the expression is gaining ground and may consequently evolve into a full loanword in the future.

(14.8)

<takʰɛ	**ŋo**	**kʰæn**	**sæn**	**sə**	**tiæn**	**sæn**	**tiæn>**
roughly	**1SG**	**see**	**three**	**four**	**o'clock**	**three**	**o'clock**
大概	我	看	三	四	点	三	点

skæra *tɕʰu* *rə-v-tæ-sʰi.*
about CONJ PFV.DIR-INV-reach.PST.3-IFR
I think that at approximately three-four o'clock, about at three o'clock, they reached home. (RN)

Source lect of the Chinese loans

The phonological forms of the Chinese loanwords testify to the fact that they have been borrowed from the local Sichuan Mandarin, not from Standard Mandarin. For instance, the

Chinese verb *dìng* [tiŋ] 订 'to order' appears as *tin* 'ordering' in Geshiza, to be used together with the light verb *və*, as discussed earlier on in this section. In Sichuanese Mandarin, the final [iŋ] does not exist, but appears instead in the cognate form of [in]. The multitude of similar examples demonstrates the obvious: namely that Geshiza borrows from the local variant of Mandarin with which its speakers are most familiar. Nevertheless, because of education together with the dispersion of television and greater exposure to programs in Standard Mandarin, the situation may change among the younger generations in the future.

Lexical strata in Chinese loanwords

The Chinese loans are not uniform, but consist of diachronically distinct layers. While the division of the lexicons loanwords into distinct strata greatly simplifies the complex linguistic history, it nevertheless helps in providing a useful outlook. In general, the Geshiza fail to recognise some oldest loanwords as such, or the process of recognition needs more conscious effort. Also, sometimes a single concept has received two distinct loanwords at different stages of the language. For instance, not every speaker is conscious of the loanword status of *jaŋxo* a nearly obsolete term for 'matches', even though its contemporary synonym *xoʈʂʰɛ* is immediately recognised as a Chinese loan. Both terms originate from *yánghuǒ* 洋火 'matches' and *huǒchái* 火柴 'matches', respectively.

Three main Chinese loanword strata are proposed below. First, the oldest stratum consists of Chinese loanwords introduced by Han Chinese immigrants who moved to the Geshiza homelands during the Qing Dynasty. As discussed in §2.5.2, the settlers introduced many new agricultural plants to the region. Consequently, agricultural vocabulary dominates the loanwords stratum. To illustrate, *jime* 'corn' and *joŋji* 'potato' were borrowed at this period from the Chinese *yùmǐ* 玉米 'corn' and *yángyù* 洋芋 'potato', respectively. Following, throughout the Qing Dynasty, Chinese loanwords continued entering the Geshiza lexicon. These loanwords have a phonetically stable form with no community-internal variation. For instance, the loaned verb *læn* (V1b) 'to go bad, become broken' borrowed from the Chinese *làn* 烂 'rotten, bad' belongs to this stratum. Finally, after the incorporation of Geshiza lands to the PRC, interaction with the Han Chinese expanded greatly. This has resulted in the newest wave of loanwords. The newest stratum, however, remains the most difficult to define. This is because of its instability. Not all new loanwords are known to all speakers, and different speakers pronounce certain loanwords in a different fashion. In all, drawing a line between code switching and genuine borrowing remains a challenging task.

Chinese loanwords and lexical replacement

Many concepts in Geshiza currently exist in two lexical forms: 'traditional' and 'modern', the latter being a Chinese loanword. Often, when such lexical pairs exist, they have slightly differing referents. The Geshiza native word typically refers to a traditional concept whereas the Chinese loanword refers to a thing or matter adopted by the Geshiza from the Chinese. For

instance, *wzi* refers exclusively to traditional Tibetan-style shoes while *xɛ* from the Chinese *xié* 鞋 'shoes' is used in the context of modern shoes. In a similar vein, *grə* refers to traditional boats made of animal hides. In contrast, the corresponding Chinese loanword *ʈʂʰuæn* originating from *chuán* 船 'boat' is used for boats constructed in a modern fashion.

Table 14.26 gives examples of such lexical pairs the existence of which is closely connected to lexical replacement. In general, each pair is unique in a replacement scale. *ʈʂʰuæn* has already completely replaced *grə* among the younger speakers who do not even understand the latter term. This is because animal hide boats have disappeared among the Geshiza. In contrast, *rgæn* is still used for box along with the borrowed *ɕaŋ(~ɕaŋ)* < xiāng 箱. Taking a realistic view, in tandem with introduction of new technology replacing traditional items and passing of time, most of such lexical duplets will likely disappear, albeit at different stages. Chinese loanwords are thus relexifying Geshiza lexicon.

Table 14.26. Examples of lexical pairs

Geshiza lexical item	Chinese loanword	Chinese original	Gloss
grə	*ʈʂʰuæn*	*chuán* 船	boat
†*mæmqo-bjola-me*[84]	*fidʑi*	*fēijī* 飞机	airplane
rgæn	*ɕan(~ɕan)*	*xiāng* 箱	box
tsʰæzgə-rɣi-je	*ɕijitɕi*	*xǐyījī* 洗衣机	washing machine
wzi	*xe*	*xié* 鞋	shoes
wmə-zvær-je	*taxotɕi*	*dǎhuǒjī* 打火机	lighter

Attitudes concerning Chinese loanwords

Some elderly speakers resist the presence of Chinese loanwords in Geshiza. When asked, they advocate speaking the language with minimal presence of Chinese loanwords. The same people, however, frequently fail to reformulate a sentence containing Chinese loanwords into 'proper' Geshiza, testifying the fact that they have become de facto indispensable in everyday speech of the language community. As discussed earlier, such prescriptive stance is absent vis-à-vis Tibetan loanwords that the Geshiza are generally unable to differentiate from native inherited lexicon.

14.3.3. Loanwords from other languages

The surroundings of the Geshiza are diverse and teem with other minority languages. Consequently, due to past interaction with the various ethnic groups in the area, loanwords from languages other than Chinese and Tibetan are expected to be present in the lexicon. Geshiza

[84] *mæmqo-bjola-me* 'airplane' is a case of complete lexical replacement. Oral memory states that when the Geshiza first became familiar, a native compound literally meaning 'sky-flier' was coined. Later, the Chinese loanword *fidʑi* has completely replaced the former term in everyday use.

lexicon includes some loanwords that look non-Trans-Himalayan. To illustrate, Geshiza *gər* 'tent' looks like a borrowing from the Mongolian *ɛəp* 'home, house, nomadic tent' (see §1.1.1 for a brief discussion of possible Mongolian immigration into the Geshiza homeland). Nevertheless, rather than being a direct loan, it originates via Tibetan where the corresponding form is *gur* 'tent'. In all, at the current stage of investigation, the exact nature of loanwords from languages other than Tibetan and Chinese remains uncertain and consequently deserves attention in more advanced Geshiza research in the future.

14.4. Registers and the lexicon

Register refers to functionally triggered variation in language, which stands in contrast with dialectal variation conditioned by socio-regional factors. The discussion below focuses on baby talk (§14.4.1) and the folklore register (§14.4.2).

14.4.1. Baby talk

Baby talk, also known as child-directed speech, is defined here as a register used for addressing young children. The author had the privilege of following the growth of a consultant's daughter from around the third birthday onwards. The findings here are consequently based on participant observation and monolingual elicitation.

Baby talk among the Geshiza is restricted to young children. I have not attested baby talk used for animals or adults in an endearing way among the Geshiza. In addition to high pitch and a shift in the timbre of voice that are likely universal features of baby talk, Geshiza baby talk primarily uses reduplication and suffixation to form a small inventory of nursery or baby talk words distinct from the standard register. At present, the size of the inventory remains unknown, but can be estimated to maximally contain several tens of items.

Reduplication in baby talk typically concerns food items: e.g. *pə* 'candy' > *pə~pə; kʰe* 'Geshiza bread' > *kʰe~kʰe*. It should be noted that many Geshiza kinship terms (see §2.3.3) and the word *nunu* 'breast' are inherently reduplicated, but these words are not restricted to the marginal linguistic system of baby-talk only. Suffixation is also attested with food items and drink. The hypocoristic suffix *-lulu* is used for food, typically rice (14.9). On the other hand, the hypocoristic suffix *-papa* attaches to liquids (14.10):

(14.9) *mbrɛ-**lulu*** *næ-ŋgi.*
rice-**HYPO** IMP-eat.2SG
Eat the rice! (addressing a baby) (MEE)

(14.10) *dʑa-**papa*** *wə-tʰi.*
tea-**HYPO** IMP-drink.NPST.2SG
Drink the tea! (addressing a baby) (MEE)

Both suffixes can be interpreted as specialised diminutives with low productivity only used in baby talk, in contrast to the standard diminutive marked by the suffix *-lŋa* (see §7.2.2.1). Participant observation indicates that the use of the productive standard diminutive is not any higher from adult-directed speech among the Geshiza.

Typological remark:
Serious typological research on baby talk starts with Ferguson (1964) discussing six languages: (Syrian) Arabic, Marathi, Comanche, Gilyak, (American) English, and Spanish. Nevertheless, the subject is surprisingly under-studied, and an extensive typological study remains to be done, likely being a fertile less-explored ground for typological research. Reduplication, diminutivisation, and hypocoristic affixation are widely used cross-linguistically in baby talk, and Geshiza reflects this.

14.4.2. Folklore register

Unlike some regional languages, such as Lhasa Tibetan, for example, Geshiza lacks pragmatically controlled distinct lexical registers based on politeness level. Notwithstanding, in addition to the everyday speech register, the orature constitutes a distinct lexical register in the language.

Geshiza orature, such as folktales (see §2.7.4) and *kʰosær* (see §15.1), uses lexicon distinct from everyday language. This register is termed folklore register in this grammar. Together with vague familiarity with the story plots, partial differences in lexicon causes difficulties for many young people to follow the stories. The folklore register contains few archaisms and mostly specialised Tibetan terms not understood by everyone. The cognates of the archaisms are sometimes still in active use in other Horpa lects, such as Stau. Large amount of Tibetan loanwords provides linguistic evidence concerning a story's Tibetan source.

On rare occasions, as in (14.11, 14.12), either partial or even full clauses are in Tibetan, showing the borrowed origin of a folk story where they appear. Sometimes the storytellers feel a need to clarify such folklore expressions for the younger audience. With the gradual disappearance of the folklore, the lexical register associated with it will also cease to exist. In the following two examples, the Tibetan words have been written in bold, the corresponding Tibetan included below:

(14.11)	*ŋɛ*	*væ-mæ*	*ma.*	***pʰa***	***me***	***ma***	***me.***
	1SG.GEN	father.CS-mother	NEG.EXV	**father**	**NEG**	**mother**	**NEG**
				pha	*med*	*ma*	*med*

I don't have a father and mother. I don't have a father and mother. (RN: folktale)

(14.12)

tɕʰu	***rdʑæza***	***æntɕoŋma*** *= je*	*ə*	***bəlædʐowe*** *= je*	***gnen***	
CONJ	**PN**	**PN**=GEN	HES	**going.to.tibet**=GEN	**betrothal**	
	ya bza'	*ong cong ma*		*bod la 'gro ba'i*	*gnyen*	

æ-lə *n-ə-vɕəu = bɔ.*
one-CLF.INDEF PREF-NACT-tell.NPST.1SG=MOD
So, I will tell a story about Princess Wencheng's betrothal trip to Tibet. (RN: folktale)

Table 14.27 lists several noteworthy instances where the everyday word differs from that frequently appearing in the folklore. The use of a certain term in the folklore register depends on the piece of orature in case-by-case basis. Consequently, not all instances of 'sky' are expressed with *anæn*, for instance.

Table 14.27. A comparison between everyday speech and folklore registers

Everyday speech	Folklore	Gloss	Remarks
tɕinkan	*dorʑipʰalæn*	diamond	Tib. *rdo rje pha lam* 'ibid.'
mæ-rŋə, mæ-mqo etc.	*anæn*	sky	Tib. *gnam* 'sky'
rastu	*zgæŋa*	egg	Tib. *sgo nga* 'egg'
tje	*goŋtʰe*	to be enough	source unclear
va-nana	*pʰɔɕʰa*	pork	Tib. *phag sha* 'pork'
vtɕə	*bjəwa*	mouse	Tib. *byi ba* 'mouse'
ʐua	*v-qe*	to throw	cf. Stau *v-qe* 'to throw'

14.5. Summary

This chapter focused on Geshiza lexicon and lexical registers. Three basic lexical layers are distinguished in Geshiza: native, Tibetan loanwords, and Chinese loanwords. An analysis of the lexicon shows that the Geshiza have interacted intensively with Tibetic speaking Tibetans in the past. After the incorporation of the Geshiza homeland into the PRC, the language is currently heavily borrowing from Chinese, which in some cases leads to lexical replacement that can be expected to continue unabated in the near future. Focusing on registers, the chapter further discussed baby talk (child-directed speech) and a folklore register with many specialised Tibetan loanwords used, the latter of which is becoming endangered due to rapidly vanishing orature among the Geshiza.

CHAPTER FIFTEEN
Oral text samples

This chapter introduces samples of different Geshiza text genres to the reader. At present, no extensive text collections of any Horpa languages have been published. As an initial step, Honkasalo (2017) discusses folklore in Poxiu Stau with two sample stories. The present chapter starts with an introduction to Geshiza speech genres (§15.1). The rest of the chapter gives examples of four Geshiza speech genres: conversation (§15.2); folktale (§15.3); local history (§15.4), and saying (§15.5). The samples represent only a part of the whole speech genre spectrum in the language. An extensive collection of Geshiza oral texts is in preparation as a separate volume to supplement this grammar.

A text in the context of linguistic fieldwork is defined here as 'a body of language behaviour generated continuously over a period by the informant and recognised as an integrated whole' (Foley 2002: 136). The term and its derivations, such as 'oral text' are all problematic (see a similar discussion on the term 'oral literature' in §2.7.4), since they lay stress on language behaviour in its written manifestations prominent in many Western societies, yet often lacking altogether among many non-Western indigenous communities. Text, however, has become a standardised term in descriptive grammars for a sample of recorded and transcribed continuous language performance. The convention is consequently followed here in the form of 'oral text' that puts emphasis on the oral primacy of the presented language materials vis-à-vis their secondary, reduced written representation offered in this work.

15.1. Introduction to Geshiza speech genres

The present work follows a common definition of a genre, the term being defined as a 'conventionalised discourse type' (Bauman 1992: 53; Dwyer and Mosel 2001: 4). Genres function as historically specific conventions and ideals for composing and receiving discourse (Hanks 1987: 670). It follows that in order to be properly and correctly received, a discourse must follow these established conventions and fulfil the expectations among the intended audience. For instance, in Geshiza, a folktale is signalled as such not only by its content, but through the use of stacked evidentials, a formal linguistic feature the Geshiza recognise as a genre marker (see §9.4.3). This was splendidly illustrated by consultant A who jokingly composed a folktale about the author's trips and sojourn among the Geshiza, allegedly told among the Geshiza in a distant future. Nevertheless, rather than following a rigid monogeneric abstract ideal, actual oral texts frequently blend different genre prototypes.

Table 15.1. Major Geshiza speech genres

Main division	Genre	Main language used
Ritual speech	scripture recitation	Tibetan
	mantras	Tibetan
	prayers	Tibetan, Geshiza
	greetings and leave-takings	Geshiza
Formal speech	speeches	Geshiza
	religious teachings	Geshiza
	public announcements	Geshiza
Oral artforms	songs	Tibetan and Chinese
	sung dances	Tibetan
	ʑə	Tibetan
	folktales	Geshiza
	kʰosær	Geshiza
	nɕʰɔ~ɕʰɔ	Geshiza
Everyday speech	reports	Geshiza
	procedures	Geshiza
	sayings	Geshiza
	insults and curses	Geshiza
	requests and commands	Geshiza
	conversations	Geshiza

Table 15.1 above summarises the most common speech genres witnessed during fieldwork. While genres have been classified in a myriad of ways by scholars emphasising their different aspects, they are classified here based on the nature of their discourse contexts. Geshiza speech may happen in ritual (e.g. prayer), formal (e.g. Buddhist sermon), or everyday (e.g. conversation) contexts. In addition, entertainment forms a context for the multiple oral artforms (e.g. folktales). As illustrated in the table and further discussed below, not all genres use the Geshiza language. For instance, mantras are recited in Tibetan while songs can be sung either in Tibetan or Chinese, yet no Geshiza songs have been confirmed to exist.

Ritual speech

Geshiza ritual speech comprises scripture recitation, mantras, prayers, and greetings. All these genres manifest themselves in fixed or near-fixed forms that must be repeated identically on each occasion. Geshiza monks and *ʂvæl* recite Tibetan Buddhist and Bön scripture, both written in Tibetan. In addition, virtually all Geshiza chant mantras and utter prayers. Geshiza mantras are pan-Tibetan and consist of repeated Tibetan sacred syllables, like the Bön mantra *oM ma tri mu ye sa le 'du*. Prayers function as invocations towards a deity and are performed in Tibetan

and in Geshiza on rarer occasions (15.1). In sum, use of Tibetan in religious contexts resembles that of Arabic as a ritual language among Muslims.

(15.1) *ste=je* *ŋo~ŋa* *n-a-ma*
everyone.GEN=GEN sick~RED.NMLZ.ACT DIR-OPT-NEG.EXV
Let everyone not have sicknesses! (RN:ethnographic description; used as a prayer for a mountain deity; see §2.7.1 for the mountain deity cult and §2.6.1 for the rooftop as the locus of the mountain deity cult in Geshiza houses)

While scripture recitation, mantras, and prayers lack interaction in the secular sense, greetings, in contrast, have a strong interactional dimension. Often formed as questions or commands in terms of their speech acts, these phatic expressions lead to interaction between the participants, possibly even triggering a conversation, a genre analysed below. As discussed in §10.1.7, many Geshiza greetings are rhetorical questions with established replies allowing only limited variation (15.2, 15.3). On the other hand, many leave-takings appear in form of imperatives (15.4):

(15.2) *d-i-tɕʰɔ.*
PFV-Q-be.comfortable.PST
How are you? (meeting for the first time early in the day) (OU, UA)

(15.3) *dæ-tɕʰɔ=bɔ.*
PFV-be.comfortable.PST=MOD
I am doing good! (reply to the above) (OU, UA)

(15.4) *tɕæ-wo* *næ-ndɔndɔn.*
road-SUPE IMP-be.careful.2
Take care on the road! (for people traveling somewhere else) (OU, UA)

Formal speech

Formal speech contains the major genre categories of speeches, religious teachings, and announcements. Performed in Geshiza, they are characterised by a gap of authority between the speaker and the audience, typically unidirectional interaction, and a planned structure. Save frequent announcements, such formal speech is comparatively rare among the Geshiza. Speeches and religious teaching constitute sister genres. While the former may take place in a secular setting, the latter requires a religious reason, for example a *mæne-xui,* an annual prayer recital meeting (see §2.4.1). As discussed above, while many religious activities, such as mantra recitations, are performed in Tibetan, the related religious teachings by lamas and monks take place in Geshiza. Medieval Christian preaching in Europe followed a similar pattern in which

mass rituals were conducted in Latin, yet the sermon was commonly preached in the local 'vernacular'. Finally, as a part of formal speech, frequent announcements take place in Geshiza villages. As a marker of an announcement, a village headman plays a segment of Tibetan music that gathers the attention of the villagers. This is followed by a brief announcement, e.g. concerning necessary repair work or a village meeting that has been planned. A segment of Tibetan music notifies that the announcement has finished.

Oral artforms

The Geshiza have six major oral art forms: songs, sung dances, *ʑə,* stories, *kʰosær,* and *nɕʰɔ~ɕʰɔ,* out of which all except songs have become seriously endangered. These genres are typically performative by nature and traditionally required an audience that follows the performance. Also, while the interaction between the performer and audience is low, the audience nevertheless frequently participates in a limited way, for instance through interjections.

Songs and stories are discussed in detail in §2.7.4. Sung dances are traditional costume dances in which movement is accompanied by singing in Tibetan. *ʑə* is an artform in which the core consists of the performers taking turns in singing short Tibetan songs, partly in a ritual dialogue fashion. It is performed during festive events for entertainment purposes, but in the past, it was a common form of entertainment among Geshiza ladies. In Balang, at least 30 pieces of *ʑə* are reported to have existed, but most have been now forgotten. The artform is now endangered to the point of facing the risk of disappearing within one generation.

kʰosær, a traditional narrative oral artform shares many characteristics with folktales, such as references to important historical or semi-historical Figures, including Princess Wencheng (see §2.7.4. *Standardisation of folklore*). Once performed during weddings, *kʰosær* are now fast being forgotten and as a consequence, they are disappearing among the Geshiza. Due to archaic vocabulary and many Tibetan loanwords, *kʰosær* are especially difficult to understand for the younger generations, which has contributed to its low vitality as an artform.

Finally, *nɛʰɔ~ɛʰɔ,* the last of the major oral artforms among the Geshiza, refers to performing jokes during a traditional event. Unlike other words for the verbal artforms, *nɕʰɔ~ɕʰɔ* is a verb 'to joke with each other' with reciprocal reduplication (cf. *nɕʰɔ* 'to say back'; see §4.3.5.5).

All these oral artforms have become endangered only recently, the endangerment proceeding at an alarming speed. The process was likely triggered only as recently as in the early 2000s through the rapid spread of television virtually every corner of Geshiza Valley (see §2.7.4 for the role of television in the endangerment of oral traditions).

Everyday speech

Everyday speech comprises the genres that happen on everyday occasions, often with a high level of interaction between the participants. The subgenres present in the category are marked by the abundance of Chinese loanwords, multitude of discourse enclitics, and frequent turn

taking. Of these, reports refer to narratives, such as personal experiences or local and family histories narrated to an audience that participates to varying levels. An example of a local history reporting a leopard attack is given in §15.3. Procedures, a genre describing the steps needed in preparing or performing something, plays no central role among the Geshiza. Since all education is in Chinese (see §2.7.5), the schools provide no domain for this genre in Geshiza either. Procedures occur in contexts, such as parents teaching skills to their children, often embedded in conversations. Sayings refer to concise expressions usually encompassing traditional knowledge, such as (15.5). An explained saying is discussed in detail in §15.5 at the end of this chapter.

(15.5)

sæmnoŋ	*dæ-wre*	*tɕʰa*	*bɔ*	*dar-pʰə.*	*leska*
thinking	PFV-be.lot	COND	more	age-AUX.CAUS.NPST.3	work

dæ-rkʰa	*tɕʰa=be*	*bɔ*	*dar-pʰə.*
PFV-be.tiring.PST	COND=too	more	age-AUX.CAUS.NPST.3

Too much thinking makes one age faster. Too much tiring work makes one age faster. (RN: proverb)

Insults and curses constitute a minor genre in Geshiza. While the exchange of insults shows variation, many of the insults themselves are formulaic, i.e., they appear in fixed conventional forms allowing little variation. To illustrate, the pattern N *næ-ŋgi* 'Eat N!' is used (15.6, 15.7). According to elderly community members, people's way of speaking has become more polite in comparison to the past times when rough language had a more noticeable presence. Verbal duels of exchanged insults are now rarely heard, with the result that this genre in a non-elicited form is almost absent from the source materials of this grammar.

(15.6)

pəslə	*næ-ŋgi.*
dust	IMP-eat. 2SG

Eat dust! (MEE)

(15.7)

mɛ-vɕʰe	*tɕʰa=ræ*	*rtɕɔpa*	*næ-ŋgi=bɔ.*
ASP.NEG-want.PST	COND=LNK	faeces	IMP-eat. 2SG

If you don't want (the apples), eat shit (instead)! (OU)

Requests and commands are listed here as a separate genre from conversations, since they do not necessarily lead to interaction between the participants, even though they also appear embedded in conversations. In (15. 8, following page), a mother merely is ordering her children to behave, not initiating a conversation with them:

(15.8) *dæ-di-ɣuəɣuən=bɔ.*
IMP-IRR.NEG-fight.2=MOD
Don't fight! (OU)

Finally, conversation is the genre with most internal variability among the Geshiza. The genre with a sample conversation is discussed in more detail in the following section below.

15.2. Conversation: Agricultural life[85]

Conversation is the most dominant speech genre among the Geshiza. This highly versatile genre is characterised by a high number of Chinese loanwords; code-switching between Geshiza and Chinese (17, D); turn-taking, repetition, and rephrasing, (18, D); unfinished utterances (2, A); overlapping utterances (12,A; 13, D); and rich use discourse enclitics and epistemic marking. For illustrative purposes, the sources of Chinese loanwords and Code switching is indicated in the excerpt below.

Despite major socio-economic changes, agriculture supplemented with migrant labour remains the primary profession of the Geshiza (see §2.5.1). Consequently, many daily conversations concern agricultural topics, e.g. cultivation and the going price of crops. The example conversation given here primarily discusses fertiliser traders bringing factory-produced fertiliser for sale in Geshiza Valley. It is an excerpt from a longer recording of approximately thirty minutes covering various topics in a non-planned fashion.

(1, D) *ŋa=tʰə* *mdʑa* *dæ-stoŋ* *tɕʰu* *<jimɛ[86]>=ɲə=læ*
1SG=TOP hoe.INF PFV-finish.PST.1PL CONJ corn=PL=TOP

æ-ntsʰæ *lɔ* *bəsni* *tɕu* *lɔ* *zə-tɕu-ræ=bɔ.*
one-CLF.little.bit again today so again PROSP-burn.NPST-SENS=MOD

næ-ɕʰoŋ-sʰə-mə *va-dzi* *kʰuæ* *næ-ɕʰoŋ-sʰə-mə.*
PFV.DIR-go.PST.1-IFR-EP pig-food give.INF PFV.DIR-go.PST.1-IFR-EP
We were finished with hoeing the field, and when I went to give the pig food, I (noticed that) today, the corn is again about to get burned (by the Sun).

[85] Consultants A, C, and D speaking, recorded in Balang Village in May 2018. The conversation is semi-elicited in the sense that the author expressed his desire to record the evening talks that had not yet started, which likely somewhat affected the flow of conversation.
[86] Chinese loanword: *yùmǐ* (玉米) 'corn'.

(2, A) *da=tʰə~tʰə*[87] *(ætɕʰə doŋ).*
now=TOP~RED what do.1PL
What shall we do now then?

(3, D) *<jime> =ɲə=læ wnæ-wsʰu-qʰa gæ-tɕʰu-sʰi.*
corn=PL=TOP two-three-CLF.stick IPFV-burn.PST-IFR
Two-three stalks of corn had become burned (by the Sun).

(4, A) *<suæ*[88]*> <suænmiəu> =ke vsəu-me dæ-tʰje-sʰi=bɔ,*
HES garlic.sprout=DAT resemble-NMLZ:A PFV-become.PST.3-IFR=MOD

[….]=tsʰe.
[name deleted]=ASS.GEN
(The corn of) household X (name deleted) has become like garlic sprouts (i.e. burned in the Sun).

(5, D) *ŋuə-ræ. ŋæ=nstʰe=be bɔ=tʰə gæ-tʰje-sʰi,*
COP.3-SENS 1=ASS.GEN=too like=DEM IPFV-become.PST.3-IFR

kʰæwa=tɕe.
side=INSTR
Indeed. Ours at the sides (of the field) has become like that as well.[89]

(6, C) *<xuaɕʰo*[90]*>, <xuaɕʰo> ra dæ-ste=jɔ.*
fertiliser fertiliser LV:hit.INF PFV-finish.PST.2SG=Q
Have you finished applying the fertiliser?

(7, D) *sʰo <xuaɕʰo> dæ-rəu. <xuaɕʰo> æ-<tɛ*[91]*> =tʰə rdən*
DM fertiliser PFV-LV:hit.1SG fertiliser one-CLF.sack=TOP exactly

dæ-sʰi
PFV-finish.PST
I applied the fertiliser. One sack was exactly enough.

[87] During annotation, A added the element in parenthesis to clarify his utterance.
[88] Not finished; full form *suænmiəu* 'garlic sprout'; Chinese *suànmiáo* (蒜苗) 'garlic sprout'.
[89] Regarding this statement, A explains that the Sun does not burn the crops at the center of a field as badly.
[90] Chinese loanword: *huàxué* (化学) 'chemical'.
[91] Chinese loanword: *dài* (袋) 'bag, sack'.

(8, C) *<xuaɕʰo->pʰo goŋ rə-n-tɕæ-sʰi-go=bɔ.*
fertiliser-cost price PFV.DIR-AB-be.big.PST.3-IFR-NSI=MOD
The fertiliser prices have increased!

(9, D) *e tʰævæ lɔ mə-ɕe=gæ. lɔre tɕʰa=kʰa*
INTERJ now again MOD.NEG-need.NPST=MOD next time=about
We don't need more now. Around the next time (i.e. during the summer cultivation)…

(10, A) *mægərja æ-<ʈʂʰe[92]> zjə-ʑæ gæ-v-tæ tɕʰu*
recently one-CLF.carload sell-NMLZ:P PFV.DIR-INV-bring.PST.3 CONJ

rə-me dæ-ma=mde.
buy-NMLZ:A PFV-NEG.EXV=MOD
They brought a carload (of fertiliser) some days ago (to be sold here), but there was no-one to buy.

(11, D) *xazi və-ræ.*
how.much LV:do.3-SENS
How much is (the price)?

(12, A) *mə-səu=bɔ. ɾjoŋ=nɔ gæ-mɛ-ɾjoŋ. lmæ=ɲu*
MOD.NEG-know.NPST.1SG=MOD ask.1PL=TOP.C IPFV-ASP.NEG-ask.1 3=PL.ERG

'<wæiti[93]> ŋuə. <wæiti> ŋuə=mɔ' jə tɕʰəsʰo.
bad.quality.product COP.3 bad.quality.product COP.3=MOD say.3 DM
I don't know! We did not even ask. They say it is of bad quality, so...

(13, D) *ɾjə ŋuə=mde.*
hundred COP.3=MOD
It is one hundred (a sack)!

(14, A) *e xə=nɔ ŋuə-ræ-mɔ. <tʰiænloŋ[94]> ŋuə=za*
INTERJ DEM=TOP.C COP.3-SENS=MOD Tianlong.car COP.3=Q

[92] Chinese loanword: *chē* (车) 'car.
[93] Chinese loanword: *wàidì* (外地) 'non-local, from another part of the country'.
[94] Chinese loanword: *tiānlóng* (天龙), refers here to Dongfeng Tianlong, a model of truck common in China.

<tʂʰetsə[95]> *bɔlə* *ŋuə=ba.*
car about COP.3=MOD
It was one of those! It was probably a Tianlong or (a normal small) car.

(15, D) *lmæ=ɲi=je* *æ-<tʂʰe>=ræ* *xə=nɔ* *<wæiti>=nɔ*
3=PL.GEN=GEN Q-CLF.carload=LNK DEM=TOP.C bad.quality.non.local.product=TOP.C

mɲa-me *ŋuə=je.* *lmæ=ɲi* *xə* *ŋuə-me* *ŋuə=mde.*
NEG.COP-NMLZ:S COP.3=MOD 3=PL.GEN DEM COP-NMLZ:S COP.3=MOD
Their fertiliser is not that, it is not of bad quality. Theirs is that one.

(16, D) *lmæ=ɲu* *roŋpa* *bɔ=tʰə* *rə-v-tʰæ* *tɕʰu,* *æ-ŋuə-ræ.*
3=PL.ERG deliberately like=DEM DIR-INV-bring.NPST.3 CONJ Q-COP.3-SENS
They deliberately bring it (the fertiliser) up here, right?

(17, D) *lmæ=ɲi=je* *tɕʰu* *æɲi* *xo* *<tɕintɕa[96]>*
3=PL.GEN=GEN CONJ distal.riverside.LOC DEM.LOC price.competition

tɕʰu *<pʰiæŋji[97]>=<ma[98]>.*
CONJ be.cheap=MOD
There is price competition (down in the lands of the Chinese), so (fertiliser) is cheap (there).

(18, D) *tʰævæ* *tɕʰu* *xə* *tɕʰu* *lmæ=ɲu* *bɔ=tʰə=tɕe* *xə=tʰə*
ZOW CONJ DEM CONJ 3=PL.ERG like=DEM=INSTR DEM=TOP

e=tʰə *bɔ=tʰə* *dæ-zjə* *tɕʰa* *tɕʰu* *lmæ=ɲu* *tɕʰu*
DEM=TOP like=DEM PFV-sell.3 COND CONJ 3=PL.ERG CONJ

lmæ=ŋu *e=tʰə=ke* *stɕæ* *n-tʰæpʰæ-me* *ŋuə=mde.*
3=PL.ERG DEM=TOP=DAT profit AB-take.out-NMLZ:A COP.3=MOD
Now, if they sell the fertiliser like that (i.e. taking it to the Geshiza lands), they can take profit from that.

[95] Chinese loanword: *chēzi* (车子) 'car'.
[96] Chinese loanword: *jìngjià* (竞价) 'price competition'.
[97] Chinese loanword: *piányi* (便宜) 'to be cheap'.
[98] Sichuanese Mandarin 'sentence-final particle'.

15.3. Local history: Leopard killing goats[99]

This oral text sample concerns a report of local or family history in Balang Village. A glossed line-by-line version is followed by a more idiomatic English translation at the end. In consultant A's household, the oral tradition states that the ancestors owned many goats and sheep that one night faced a devastating attack from an intruding leopard. The financial loss of this incident must have been quite significant for the household. Memorable incidents such as the one narrated herein have often morphed into family histories that are occasionally passed on to the younger generations or friends.

The history reveals that in the past, the Geshiza mountains had more wildlife. This is confirmed by further interviews with elderly community members who state that wild animals, such as bears and leopards, occasionally came down from the mountains and thus presented a threat to the farmers' livestock in the past. Culturally, the history also provides a valuable piece of evidence concerning the use of goats and sheep as domestic animals in Balang Village. At present, these animals have lost their status as prominent domestic animals, at least in easternmost Geshiza.

(1) *ŋui=nɔ* *ŋuə-ræ.*
before=TOP.C COP.3-SENS
(It was) in the past.

(2) *bɔ* *ŋui=nɔ=kʰa* *ŋuə-ræ* *sʰo.*
relatively before=TOP.C=about COP.3-SENS CONJ
(It was) a little bit in the past.

(3) *ŋæ=ntsʰe* *ŋui* *tsʰæ-ji* *wətsʰe* *dæ-ntɕo-sʰi* *ŋuə-ræ.*
1=ASS.GEN before goat-sheep many PFV-own.PST.3-NMLZ COP.3-SENS
Our household used to have many goats and sheep.

(4) *rzəu* *dæ-tsa-sʰi* *ŋuə-ræ* *tɕʰu.*
leopard PFV-be.many.PST-NMLZ COP.3-SENS CONJ
There were many leopards.

(5) *rzəu* *dæ-tsa* *dæ-tsa=ræ* *lmæ=ɲu* *zləu*
leoplard PFV-be.many.PST PFV-be.many.PST=LNK 3=PL.ERG pasture

[99] Consultant A speaking, recorded in Balang Village in November 2016

wə-v-q^{h}e=be	*s^{h}o*	*zlæ-jo=be*	*(lmæ=ɲ[100])*	*ts^{h}æ-ji*
PFV.DIR-INV-herd.PST.3=too	DM	pasture-field=too	3=HES	goat-sheep

g-ə-v-ɕ^{h}a-me	*dæ-ŋuə.*
PREF-NACT-INV-snatch-NMLZ:A	PFV-COP.3

There were many leopards. Both when being taken to the pasture and in the pasture, they (the leopards) snatched (and killed) goats.

(6)

bɔ	*g-ə-jə-me*	*dæ-ŋuə.*
thus	PREF-NACT-say.3-NMLZ:P	PFV-COP.3

It was said like this.

(7)

tɕ^{h}a=ræ	*ŋæ=nts^{h}e*	*æzɣæ*	*ŋui*	*rtæ-ko*
time=LNK	1=ASS.GEN	medial.downriver.LOC	before	horse-LOC

æ-lə	*dæ-də=ræ*
one-CLF.INDEF	PFV-EXV=LNK

At that time, at the downriver side (of the house), we used to have a stable.

(8)

e	*t^{h}o=ræ*	*rzəu*	*dæ-ʑe=ræ*
DEM	DEM.LOC=LNK	leopard	PFV-come.3=LNK

A leopard came there.

(9)

ŋæ=nts^{h}e	*ts^{h}æ*	*k^{h}ɔ~k^{h}ɔ*	*æ-zɣa*	*jə=za*	*æ-wnæsq^{h}a*
1=ASS.GEN	goat	INTERJ~RED	one-ten	say.3=Q	one-twenty

bɔlə	*ts^{h}æ*	*dæ-v-sæ*	*dæ-v-læ-ræ*
about	goat	PFV-INV-kill.PST.3	PFV-INV-LV:release.3

Alas, it killed about ten or twenty something of our goats.

(10)

t^{h}i	*s^{h}e*	*dæ-nts^{h}u-s^{h}i*	*ŋuə-mə-ræ.*
DEM.GEN	blood	PFV-suck.PST.3-NMLZ	COP.3-EP-SENS

It sucked their blood.

(11)

tɕ^{h}a=ræ	*< t^{h}iænt^{h}son >*	*æ-lə*	*dæ-wi.*
time=LNK	hatchway	one-CLF.INDEF	PFV-EXV

At (that) time, there was a hatchway (in our house).

[100] Not finished; full form *lmæ=ɲu* '3=PL.ERG'

(12) *ŋæ=ntsʰe* *(kær)*[101] *rbæmæ* *tʰo* *<tʰiæntʰson>=tʰə*
1=ASS.GEN (HES) rooftop DEM.LOC hatchway=TOP

ŋæ=ɲu=nɔ *æ-ntsʰæ* *san.*
1=PL.ERG=TOP.C one-CLF.little.bit know.NPST.1PL
We (the younger later generations) know a bit about the hatchway at the rooftop space.

(13) *tʰævæ* *e* *tʰi=nɔ* *næ-nɕə-sʰi* *ŋuə-ræ,* *næ-ro*
now DEM DEM.GEN=LOC PFV.DIR-jump.PST.3-NMLZ COP.3-SENS DIR-ADV

tɕʰa.
on
Now, (the leopard) jumped down through it (the hatchway).

(14) *d-ə-vkə=ke=ræ* *rə-ro* *rə-nɕʰə*
PREF-NACT-get.full.NPST.3=SEQ=LNK DIR-ADV DIR-jump.INF

mə-tɕʰa-mə-ræ.
MOD.NEG-AIX.can.NPST.3-EP-SENS
After getting full, it could not jump up (and go away).

(15) *xə=ke=ræ* *ɣe* *tʰo* *budubu* *g-ə-vrə* *kʰɔ.*
DEM=DAT=LNK house.GEN DEM.LOC IDEO PREF-NACT-make.sound.3 INTERJ
Then it scratched door making the sound ‘budubu’ (since it wanted out).

(16) *xaræ* *rzəu=wo* *mæ* *zə-bji* *tɕʰa=ræ* *gæ-v-dæ* *tɕʰu*
CONJ leopard=ERG sky PROSP-high.3 when=LNK IPFV-INV.do.3 CONJ

ŋæ=ntsʰe *æpa* *lmu=ræ* *sʰo* *rkəmæ* *ŋuə-go*
1=ASS.GEN father 3SG.ERG=LNK DM thief COP.3-CFC

dæ-wrə=ræ
PFV-imagine.3=LNK
At the time when then Sun was about to rise, the leopard did like this, so our father thought (mistakenly) that it was a thief.

[101] Not finished; full form *kærku* ‘window’.

(17) *ŋæ=ntsʰe* *æpa=wo* *jæɣuə* *rə-ɕʰə=ræ* *mtsi-ʑo=tʰə*
1=ASS.GEN father=ERG rooftop PFV.DIR-go.PST.3=LNK polish-stone=TOP

gæ-tɕʰæ *rgævæ, rgævæ* *gæ-tɕʰæ* *æ-rgəu=tʰə* *wə-ʑua=ræ*
ADJZ-big stone stone ADJZ-big one-CLF.general=TOP PFV.DIR-throw.3=LNK
Our father went to the rooftop and he threw a large polishing stone down (to the downriver direction).

(18) *ɣæ=ke* *wɔ-zi=ræ* *ɣæ-qrə*[102] *dɔ-ɕʰə-sʰi*
door=DAT PFV.DIR-hit.target.3=LNK door-pivot.hinges PFV-broke.PST-NMLZ

ŋuə-ræ.
COP.3-SENS
It hit and broke the pivot hinges of the door.

(19) *ɣæ-qrə* *ʑɕə=ke=ræ* *bɔ=tʰə* *ɣæ*
door-pivot.hinges break=SEQ=LNK like=DEM DOOR

wə-bædʑo-sʰə-mə-ræ.
PFV.DIR-separate.ANTICAUS.3-IFR-EP-SENS
After breaking the pivot hinges, the door was left partially hanging (and thus a small opening formed)

(20) *zdəu* *lmo* *sʰo* *dæ-ntʂætʂæ=ræ* *sʰo* *tʰi*
leopard 3SG.ERG more PFV-pull.PST.3=LNK DM DEM.GEN

rqəu=ræ *xaræ* *rdzəu* *dæ-luxa=ræ* *dæ-pje-sʰi*
between=LNK CONJ leopard PFV-come.out.3=LNK PFV-escape.PST.3-NMLZ

ŋuə-ræ, *rzəu=tʰə.*
COP.3-SENS leopard=TOP
The leopard, it pulled it (the door) even further and it went out from between (the wall and the opening) and escaped, that leopard.

[102] Before modern hinges were available, the door was attached and made to move by means of two pivot hinges, one in the upper and one in the lower corner of the door. Pivot are not in common use among the Geshiza anymore.

(21) *ke=ræ*[103] *ŋæ=ntsʰe* *æpa* *ɲo* *gædə=væmɲi*
DAT=LNK 1=ASS.GEN father after morning=CONJ

gæ-bji *ɲo=væmɲi* *wə-ɕə=ke=ræ* *xo-xo*
IPFV-high.3 after=CONJ PFV.DIR-go.NPST.3=SEQ=LNK INTERJ~RED

tsʰæ=tʰə *sʰo~sʰo* *æ-zɣa* *æ-wnæsqʰa* *bɔlə* *æqɛ* *ɲəvə=zɔ*
goat=TOP DM~RED one-ten one-twenty about all barn=only

dæ-v-sæ-sʰə-mə-ræ.
PFV-INV-kill.PST.3-IFR-EP-SENS
Then our father, after, in the morning, after dawn, he went (to see what had happened).
The leopard had killed about ten, twenty plus goats, all of them inside the barn.

(22) *ŋui* *tsʰæ* *kʰɔ* *dʑo~dʑo* *dæ-ntɕo.*
before goat INTERJ RED.ADJZ~many PFV-own.PST.3
In the past, they had had a lot of goats there!

(23) *aja* *æ-rjə* *mətsʰæ* *dæ-ntɕo-sʰi-ɣa* *ŋuə-ræ.*
INTERJ one-hunderd more PFV-own.PST.3-NMLZ-POT COP.3-SENS
Alas, they (my forefathers) probably had more than a hundred (goats), right?

(24) *tʰə* *ŋæ=nstʰe* *æpa* *bɔ=tʰə* *æ-ntsʰæ* *æ-ntsʰæ*
DEM 1=ASS.GEN father like=DEM one-CLF.little.bit one-CLF.little.bit

g-ə-vɕæ-me *dæ-ŋuə.*
PREF-NACT-say-NMLZ:P PFV-COP.3
My father (told me) a little bit about this.

(25) *ŋæ=ɲə=nɔ* *mənɔ* *mə-san-ræ.*
1=PL=TOP.C at.all MOD.NEG-know.NPST.1PL-SENS
We do not know (directly) anything about this.

(26) *rə-mɛ-stɕʰan-sʰi=nɔ* *dæ-ŋuə-sʰi-ɣa* *ŋuə-ræ=bɔ.*
PFV-ASP.NEG-be.born.PST.1-IFR=TOP.C PFV-COP.1-NMLZ-POT COP.3-SENS=MOD
I was maybe not born yet.

[103] Notice how the dative case enclitic (see §5.3.4) lacks a host here. This use is judged ungrammatical by the speakers, but happens in practice in narrative contexts. The hostless dative enclitic likely results from an eroded form of *xə=tʰə=ke=ræ* (DEM=TOP=DAT=LNK) 'and then'.

(27) *dəu~dəu* *dæ-ŋoŋ-s^{h}i-ɣa* *ŋuə-ræ.*
RED.ADJZ~small PFV-COP.1-NMLZ-POT COP.3-SENS
I was maybe very little.

(28) *zalæ* *rə-mɛ-stɕ^{h}an-s^{h}i* *dæ-ŋuə=be*
maybe PFV-ASP.NEG-be.born.PST.1-NMLZ PFV-COP.3=even

mə-səu-ræ.
MOD.NEG-know.1SG-SENS
Maybe I was not born yet, I still do not know.

(29) *tɕ^{h}u* *bɔ=t^{h}ə* *ŋuə-ræ,* *rzdəu* *<tɕ^{h}ink^{h}uæn>.*
CONJ like=DEM COP.3-SENS leopard situation
So the case about the leopard was like this.

Retold English version

About a generation ago in the past, our household in Balang Village was rich and had many goats and sheep. At that time, many leopards still roamed around. When villagers took their animals to pasture, leopards occasionally managed to snatch and kill goats and sheep there as well. Older generations have told us it was like this.

At that time, we used to have a stable in our house. We also had a hatchway in the old house. We the younger generations remember the hatchway a bit. One day, a leopard came into the barn, jumping in through the hatchway. It killed about ten or twenty of our goats and then sucked their blood. After getting full from drinking the goats' blood, the leopard could not jump up and go away the same way it had come in. Then it started scratching the stable door since it wanted to get out.

At the time, the Sun was about to rise. Our father thought that it must be a thief making all that noise. Our father then went to the rooftop and still surrounded by darkness, threw a large polishing stone down to the place from where he thought the sound was coming. The large polishing stone, however, hit and broke the pivot hinges of the door. After the pivot hinges broke, the door was left partially hanging, which formed a small opening between it and the wall. The leopard pulled the door even further open and escaped from that opening.

After dawn, our father went to see what had happened. He saw that the leopard had killed twenty or even more of our goats in the barn. Before the leopard came, they had more than a hundred goats. My father has told me a little bit about this event. We the children do not know anything about this directly since we were all too young at the time. I was maybe very young at the time. Maybe I was not even born yet; I don't really know. The story of the leopard is like this.

15.4. Folktale: Dran pa nam mkha' and Padmasambhava[104]

Geshiza folktales comprise many subgenres, including tales of monsters and heroes, trickster stories, humorous tales, animal fables, moral tales, and myths. Often a tale exhibits elements from more than one genre, leading to blending of genres. As discussed in §2.7.4, virtually all types of stories are now becoming extinct among the Geshiza.

The folktale given as a sample of the genre is classified as a religious myth. The folktale has probably been borrowed from Tibetic-language speaking Tibetans the Geshiza have interacted with in the past (see line 34 for linguistic evidence). The tale tells how Tibetan Buddhism derives from the Bön religion. A glossed line-by-line version is followed by a more idiomatic English translation at the end.

Many Geshiza practice Bön amidst Tibetan Buddhists surrounding them, which leads to the need to find an explanation for the situation. In the story, Padmasambhava (Ge. *pæma-mdʑone;* Tib. *pad+ma 'byung gnas*), one of the greatest masters revered by Tibetan Buddhists, is depicted to betray the tradition of his Bönpo father *dran pa nam mkha'* (Ge. *ɖʐæmba-næmk^{h}a*), subsequently founding a new religion, namely Tibetan Buddhism.[105] The Bön tradition considers *dran pa nam mkha'* an important teacher. To corroborate Bön's perceived superiority over Tibetan Buddhism, Padmasambhava is depicted as a son of *dran pa nam mkha'* in the story. While Tibetan Buddhists regard *dran pa nam mkha'* a disciple of Padmasambhava, Bönpo inverse the relationship by regarding *dran pa nam mkha'* Padmasambhava's father or elder brother (Samuel 2013: 13).

(1)	*o*	*ɖʐæmba-næmk^{h}a*	*jə-me*	*æ-ɣi*	*dæ-dʑi.*
	INTERJ	PN-PN	say-NMLZ:P	one-CLF.person	PFV-EXV.3
	There was a person called *dran pa nam mkha'*.				

(2)	*ɖʐæmba-næmk^{h}a=t^{h}ə~t^{h}ə=wə=ræ*	*xaræ*	*(skə=ke)*[106]	*a*	
	PN-PN=TOP~RED=ERG=LNK	CONJ	(bodhisattwa=DAT)	HES	
	ɕ^{h}a=ke=ræ	*xaræ*	*'nærbə*[107]	*t^{h}oŋ'*	*dæ-jə-s^{h}i*
	god=DAT=LNK	CONJ	wish-fulfilling.jewel	beg.NPST.1	PFV-say.3-NMLZ

[104] Anonymous *ʑvæl* from Buke Village speaking, recorded in Balang Village in November 2016

[105] The Bön narrative differs from the better-known Tibetan Buddhist viewpoint. In Tibetan Buddhism, Padmasambhava is inarguably the second most venerated figure after Shakyamuni Buddha, revered for introducing Tibetan Buddhism into Tibet and subduing demonical forces by converting them into protectors of Buddhism. For an English translation of Padmasambhava's life story from the Tibetan Buddhist viewpoint, see Yeshe Tsogyal (1993), a readable translation by Eric Pema Kunsang.

[106] The speaker hesitates and rephrases subsequently, correcting himself.

[107] The word *nærbə* is a Tibetan loanword (*nor bu*) with the original meaning 'jewel, precious stone'. In Tibetan, the term is often used in religious discourse. In Geshiza, the word has a rather abstract nuance. Consequently, I translate it broadly as 'wish-fulfilling jewel'. This use also appears in folklore narrated in Tibetic languages.

ŋuə-ræ
COP.3-SENS
Dran pa nam mkha' said (to the Bodhisattwas,) to the God of Heaven: 'Give me a wish-fulfilling jewel!'

(3)

'nærbə	*$t^hoŋ$'*	*dæ-jə=ræ*	*xaræ*	*xə=nts^he=je*
wish-fulfilling.jewel	beg.NPST.1	PFV-say.3=LNK	CONJ	3=ASS.GEN=GEN

rjəu=ke=ræ	*xaræ*	*'rbæmæ*	*$tɕ^ha$=ræ*	*xaræ*	*$tɕ^hap^hæn$*
wife=DAT=LNK	CONJ	rooftop	on=LNK	CONJ	tray

noŋ=ræ	*xaræ*	*nærbə*	*(gæ-)*[108]	*gæ-t^hue=mə'*
inside=LNK	CONJ	wish-fulfilling.jewel	IMP	IMP-catch.NPST.2SG= MOD

dæ-jə-s^hi	*ŋuə-ræ.*
PFV.say.3-NMLZ	COP3.SENS

After saying 'Give me a wish-fulfilling jewel', he said to his wife: 'On the rooftop, catch the wish-fulfilling jewel (falling from the sky) with a tray!'

(4)

ɲjəu=$t^hə$	*mtɕ^{h}ær-ko=ræ*	*g-ə-zgru-mə-ræ.*
ANAPH.ERG=TOP	offer-NMLZ:LOC	IPFV-recite.sutras.3-EP-SENS

He himself recited (Tibetan) sutras in the altar room.

(5)

xə=$t^hə$=ke=ræ	*xaræ*	*xə=nts^he=je*	*lŋa=$t^hə$=ræ*	*xaræ*
DEM=TOP=DAT=LNK	CONJ	3=ASS.GEN=GEN	child=TOP=LNK	CONJ

slə-ɣuə	*da-rdʑu*	*rə-lxua=ræ*	*xaræ*	*jovə*
stairs-head	PFV-run.3	PFV.DIR-appear.3=LNK	CONJ	medial.riverside.LOC

zə-nɕ$^hə$	*zə-dza-mə-ræ*	*$tɕ^hu$*
PROSP-jump.down.NPST.3	PROSP-fall.ANTICAUS.3-EP-SENS	CONJ

Then, their child appeared running up the stairs (to the rooftop). Reaching the side of the rooftop), he was just about to fall down.

(6)

$t^hə$=ke=ræ	*xaræ*	*xə=nts^he*	*rjəu=wə=ræ*	*xaræ*	*'e*
DEM=DAT=LNK	CONJ	3=ASS.GEN	wife=ERG=LNK	CONJ	INTERJ

[108] The first instance of the orientational prefix *gæ-* functioning as the imperative marker results from the narrator's hesitation.

lŋa *zə-dza'* *dæ-ntsə.*
child PROSP-fall.ANTICAUS.3 PFV-think.PST.3
Then his wife thought: 'Our child is about to fall down!'

(7) *<tɕʰapʰæn> =tʰə* *rtsʰɔ* *dæ-ʑua=ræ* *xaræ* *lŋa* *tɔ*
tray=TOP IDEO PFV-throw.3=LNK CONJ child IDEO

dæ-v-rə-sʰə-mə-ræ.
PFV-INV-do.3-IFR-EP-SENS
She quickly threw the tray down and caught the child.

(8) *xə=tʰə=ke=ræ* *ɕʰa=wə* *nærbə* *næ-ntʰæ-me=tʰə=ræ*
DEM=TOP=DAT=LNK god=ERG wish-fulfilling.jewel DIR-bring-NMLZ:P=TOP=LNK

xaræ *rə-ro* *lɔ* *dæ-mbe-sʰə-mə-ræ* *tɕʰu.*
CONJ DIR-ADV again PFV-carry.3-IFR-EP-SENS CONJ
Then, the God of Heaven took up again the wish-fulfilling jewel that he was about to bring down.

(9) *ʤæmba-næmkʰa=wə=ræ* *xaræ* *rjəu=ke* *dæ-v-dæ-sʰə-mə-ræ.*
PN-PN=ERG=LNK CONJ wife=DAT PFV-INV-scold.3-IFR-EP-SENS
Dran pa nam mkha' scolded (his) wife.

(10) *'ŋɛ* *nærbə* *næ-ntʰæ-me=tʰə=ræ* *nærbə*
1SG.GEN wish-fulfilling.jewel DIR-bring-NMLZ:P=TOP=LNK wish-fulfilling.jewel

ma-me *dæ-tʰje'* *dæ-jə-wə.*
NEG-NMLZ:S PFV-become.PFV.3 PFV-say.3-QUOT
'The wish-fulfilling jewel that was about to be brought down disappeared,' he said.

(11) *dæ-v-tæpa-sʰə-mə-ræ,* *wne=tʰə* *ma-zə.*
PFV-INV-drive.away.PST.3-IFR-EP-SENS two=TOP mother.CS-child
He drove them out (from home), the wife and the child.

(12) *xə=tʰə=ke=ræ* *wne=tʰə* *ma-zə* *wə-ve=ke=ræ*
DEM=DEM=DAT=LNK two=TOP mother.CS-child DIR.go.SUPL.3=SEQ=LNK

xaræ *mtsʰo-wa* *æ-ŋɛ* *wə-v-tæ-sʰə-mə-ræ.*
CONJ lake-APUD one-CLF.place PFV.DIR-INV-reach.3-IFR-EP-SENS

Then they two, the mother and the child, went (towards East) and reached a certain place by a lakeside.

(13) *mts^{h}o-wa* *wə-v-tæ=ke=ræ* *xaræ* *xo=ræ* *xaræ*
lake-APUD PFV.DIR-INV-reach.3=SEQ=LNK CONJ DEM.LOC=LNK CONJ

'dʑa *æ-lə* *z-loŋ'* *dæ-jə-s^{h}ə-mə-ræ,* *wne=t^{h}ə*
tea one-CLF.INDEF CAUS-boil.1PL PFV-say.3-IFR-EP-SENS two=TOP

ma-zə=(wə)[109].
mother.CS-child(=ERG)
After they reached the lakeside there, they said: 'Let us make some tea', the mother and the child – the two.

(14) *lŋa=t^{h}ə* *xo* *mts^{h}o-wa* *dæ-v-læ=ræ* *xaræ*
child=TOP DEM.LOC lake-APUD PFV-INV-leave.3=LNK CONJ

ɲjəu =t^{h}ə~t^{h}ə *s^{h}i* *dæ-zgə-s^{h}i.*
ANAPH.ERG=TOP~RED firewood PFV-gather.firewood.3-IFR
Leaving the child there at the lakeside, she (the mother) collected firewood.

(15) *s^{h}i* *zgə* *dæ-ɕ^{h}ə-s^{h}i* *ŋuə-ræ.*
firewood gather.firewood.INF PFV.go.PST.3-NMLZ COP.3-SENS
She went to collect firewood.

(16) *s^{h}i* *zgə* *ɕə=ke=ræ* *xaræ*
firewood gather.firewood.INF go.NPST.3=SEQ=LNK CONJ

je *mts^{h}o-wa=ræ* *pælma-mætɔ* *jə-me=t^{h}ə* *dæ-wi=ræ*
DEM lake-APUD=LNK lotus-flower say-NMLZ:P=TOP PFV-EXV=LNK

xaræ *pælma-mætɔ=je* *tɕ^{h}a=ræ* *lŋa=wə=ræ* *xaræ* *t^{h}i*
CONJ lotus-flower=GEN on=LNK child=ERG=LNK CONJ DEM.GEN

[109] element in parenthesis barely audible

tɕʰa *rə-ɕʰə=ræ* *xaræ* *nwatɕə* *g-ə-və-mə-ræ-jə.*
on PFV.DIR-go.PST.3=LNK CONJ playing PREV-NACT-LV:do.3-EP-SENS-REP
When she went to collect firewood, at that lakeside, there was a flower called lotus. It is said that the child climbed on the lotus flower; climbed on it and played (there).

(17) *tʰə=ke=ræ* *e* *pælma-mætɔ=tʰə=ræ* *xaræ* *wnæ*
DEM=DAT=LNK DEM lotus-flower=DEM=LNK CONJ sunlight

gæ-tsʰəu *tɕʰa=tʰə~tʰə~tʰə=wə* *pʰræl* *wə-ɕə.*
IPFV-heat.PST when=TOP~RED~RED=so bloom PFV.DIR-go.NPST.3
Then, when the Sun starts heating, the lotus opens into a bloom.

(18) *wbə* *ɕə=ke=ræ* *xaræ* *lmæ* *mtɕo* *ɕə-mə-ræ-jə.*
Sun go.NPST.3=SEQ=LNK CONJ 3SG bud go.NPST.3-EP-SENS-REP
It is said that when the Sun sets, the flower closes up again.

(19) *xə=tʰə=ke=ræ* *e* *lŋa=tʰə=ræ* *e* *mætɔ* *noŋ=ræ*
DEM=TOP=DAT=LNK DEM child=TOP=LNK DEM flower in=LNK

mtɕo *dæ-ɕʰə=ræ* *xaræ* *lŋa* *ma-mə* *tɕʰu,*
bud PFV-go.pst.3=LNK CONJ child NEG-EP CONJ

dæ-ʑe=ke=ræ *sʰi* *dæ-nʑæ* *dæ-ʑe=ke=ræ*
PFV-come.3=SEQ=LNK firewood PFV-bring.3 PF-come.3=SEQ=LNK

lŋa *dæ-ma=ke=ræ* *xaræ* *stæŋɛ* *dæ-ɕʰua* *kʰɔ~kʰɔ*
child PFV-NEG=SEQ=LNK CONJ everywhere PFV-search.PST.3 INTERJ~RED
Then the child went inside the closed bud. When (the mother) came back, there was no child (there). After bringing firewood and coming back, there was no child. She (the mother) searched everywhere.

(20) *xə* *dæ-v-dæ=ke=ræ* *xaræ* *kʰɔ~kʰɔ.*
DEM PFV-INV-do.3=SEQ=LNK CONJ INTERJ~RED
She did that (i.e. looked for her child).

(21) *dæ-lɣa-ra=wə* *e* *mætɔ* *tʰæmtɕæ* *dæ-v-kuæ=ræ*
PFV-crazy=cause DEM flower all PFV-INV-cut.PST.3=LNK

mts^{h}o=nɔ *næ-ʑua-s^{h}ə-mə-ræ.*
lake=LOC PFV.DIR-throw.3-IFR-EP-SENS
Like having gone crazy, she cut all the flowers and threw them into the lake.

(22) *t^{h}ə=ke=ræ* *xaræ* *lŋa* *mɛ-v-ri=ke* *e* *lŋa=t^{h}ə=ræ*
DEM=DAT=LNK CONJ child ASP.NEG-INV-find.3=SEQ DEM child=DEM=LNK

mts^{h}o *tɕ^{h}a=ræ~ræ* *e* *mætɔ* *noŋ* *dæ-dʑi=ræ* *xaræ*
lake on=LNK~RED DEM flower in PFV-EXV.3=LNK CONJ

rŋo=wə=ræ *xaræ* *t^{h}ə* *wə-mbe* *wə-mbe*
river=ERG=LNK CONJ DEM PFV.DIR-carry.3 PFV.DIR-carry.3

wə-mbe-s^{h}ə-mə-ræ-jə.
PFV.DIR -carry.3-IFR-EP-SENS-REP
Then she did not find the child. It is said that the child was on the lake inside that (lotus) flower and then it was carried away (with the flower) by the river (current).

(23) *xə=t^{h}ə=ke=ræ* *k^{h}ætɕ^{h}i=ræ* *rdʑælpə* *æ-ɣæ=je* *lŋa*
DEM=TOP=DAT=LNK down=LNK chieftain one-CLF.house=GEN child

gæ-ma=ræ *xaræ* *ʐato* *æ-lə* *gæ-və-s^{h}i* *ŋuə-ræ.*
IPFV-NEG.EXV=LNK CONJ recitation one-CLF.INDEF IPFV-LV:do.3-NMLZ COP.3-SENS
Then, down(river), there was a family of a chieftain without children and they were performing (Buddhist scripture) recitations (in order to get one).

(24) *xə=t^{h}ə=ke=ræ~ræ* *xə=nts^{h}e=je* *lɔrdə* *æ-ɣi=wo*
DEM=TOP=DAT=LNK~RED 3=ASS.GEN=GEN servant one-CLF.person=ERG

wrə *ɕ^{h}a* *næ-ɕ^{h}ə=ke=ræ* *xaræ* *e* *wnæ*
water take.INF PFV.DIR-go.PST.3=SEQ=LNK CONJ DEM sunlight

g-ə-tsəu=ke=ræ *e* *mætɔ* *noŋ=ræ* *xaræ* *e*
PREF-NACT-heat.IPFV=SEQ=LNK DEM flower in=LNK CONJ DEM

lŋa=t^{h}ə *lmæ* *e* *mætɔ=t^{h}ə* *lɔ* *wə-lbəu=ke=ræ*
child=DEM 3SG DEM flower=DEM again DIR-bloom=SEQ=LNK

lŋa=t^{h}ə *mætɔ* *tɕ^{h}a* *gæ-ɲjæji-s^{h}i* *dæ-dʑi-s^{h}i* *ŋuə-ræ.*
child=DEM flower on IPFV-play.3-NMLZ:S PFV-EXV.3-NMLZ COP.3-SENS
Then their servant went down (to the river) to get some water. The Sun had started heating (in the morning), the flower opened into a bloom again and the child was playing on the flower.

(25) *t^{h}ə=ke=ræ* *xaræ* *xə=nts^{h}e=je* *ɲjɔ* *t^{h}u=wə* *wrə*
DEM=DAT=LNK CONJ 3=ASS.GEN=GEN servant DEM.ERG=ERG water

æ-rgəu *rə-mbe=ræ* *rdʑælpə=ke* *dæ-jə-s^{h}i* *ŋuə-ræ:*
one-CLF.general PFV.DIR-carry.3=LNK chieftain=DAT PFV-say.3-NMLZ COP.3-SENS
Then their servant carried the water up (to the house) and told the chieftain:

(26) *'t^{h}o* *ɪŋo* *noŋ* *lŋa* *æ-lə* *wə-n-t^{h}æ-ræ'*
DEM.LOC river in child one-CLF.INDEF DIR-AB-arrive.NPST.3-SENS

dæ-jə-s^{h}ə-mə-ræ.
PFV-say.3-IFR-EP-SENS-REP
'There in the river there is a child coming (down floating in the river),' he said.

(27) *t^{h}ə=ke=ræ* *rdʑælpə=wə=ræ:* *'oxo* *ŋæ=nts^{h}e* *ʑjoŋ*
DEM=DAT=LNK chieftain=ERG=LNK INTERJ 1=ASS.GEN fortune

dæ-ʑe-s^{h}i=gæ' *dæ-jə-wə.*
PFV-arrive.3-IFR=MOD PFV-say.3-QUOT
Then the chieftain said: 'Ohh, a great fortune has arrived at our household.'

(28) *t^{h}ə=ke=ræ* *xaræ* *xə* *dæ* *dæ-ɕ^{h}ə-s^{h}i* *ŋuə-ræ-jə.*
DEM=DAT=LNK CONJ DEM do.INF PFV-go.PFV.3-NMLZ COP.3-SENS-REP
Then he (the servant) went to do that.

(29) *'næ-ɕin* *e* *lŋa=t^{h}ə* *dæ-k^{h}rən'* *dæ-jə*
IMP-go.IPFV.2 DEM child=TOP IMP-grab.IPFV.2PL PFV-say.3

dæ-v-krə-s^{h}ə-mə-ræ-jə.
PFV-INV-grab.PST.3-IFR-EP-SENS-REP
'Go and take (lit. grab) that child (from the river)!' he (the chieftain) said, and they (the servants) took (the child from the river).

(30) *lŋa* *dæ-v-krə=ræ* *xaræ* *rə-v-ɕi-sʰə-mə-ræ-jə.*
child PFV-INV-grab PST.3=LNK CONJ PFV.DIR-INV-bring.PST-IFR-EP-SENS-REP
After taking the child (from the river), they brought it (to the chieftain).

(31) *e* *lŋa=ke* *dæ-jə-wə:*
DEM child=DAT PFV-say.3-QUOT
He (the chieftain) said to this child:

(32) *'ɲi* *sʰə=nstʰəu* *ŋuən.* *ɲi* *æpæ* *æmæ* *sʰə* *ŋuə'*
2SG who=ASS COP.2 2SG.GEN father mother who COP.3

dæ-jə-sʰi *ŋuə-ræ.*
PFV-say.3-IFR COP.3-SENS
'From whose house are you? Who are your father and mother?' he (the chieftain) said.

(33) *lŋa=wə* *dæ-jə-wə:* *'ŋɛ* *væ-mæ* *ma.'*
child=ERG PFV-say.3-QUOT 1SG.GEN father.CS-mother NEG.EXV
The child said: 'I don't have a father and mother.'

(34) *'pʰa* *me* *ma* *me.*[110] *tɕʰəwo* *spəlpeskə*[111] *ŋoŋ'*
father NEG mother NEG PN incarnation COP.1

dæ-jə-sʰə-mə-ræ.
PFV-say.3-IFR-EP-SENS
'I don't have a father and mother I am the incarnation of *tɕʰəwo*,' he said.

(35) *xaræ* *e* *lŋa=wə* *dæ-jə-wə:*
CONJ DEM child=ERG PFV-say.3-QUOT
Then that child said:

(36) *'ŋa* *tɕʰəwo* *spəlpeskə* *ŋoŋ'* *dæ-jə-sʰə-mə-ræ.*
1SG PN incarnation COP.1 PFV-say.3-IFR-EP-SENS
'I am the incarnation of *tɕʰəwo*,' he said.

[110] The segment *pʰa me ma me*, rephrasing of the preceding (33), is in Tibetan: *pha med ma med,* '(I)don't have father. (I) don't have mother' and shows the Tibetan origin of the story.
[111] The self-identified title of the child is said in Tibetan. *spəlpeskə* corresponds to the Written Tibetan s*prul pa'i sku* 'incarnation, emanation (nirmāṇakāya)'; *tɕʰəwo* remains unidentified.

(37) *xə=tʰə=ke* *lŋa=(je)* *rə-v-ɕi-sʰə-mə-ræ-jə.*
DEM=TOP=DAT child=(GEN) PFV.DIR-INV-take.PST.3-INF-EP-SENS-REP
Then he (the chieftain) took the child (to his household).

(38) *e* *lŋa* *rə-v-ɕi=ke=ræ* *lŋa=tʰə*
DEM, child PFV.DIR-INV-recveive.3=DAT=LNK child=TOP

rə-n-tɕæ *rə-n-tɕæ=ræ~ræ*
PFV.DIR-AB-grow.up.PST.3 PFV.DIR-AB-grow.up.PST.3=LNK~RED

lŋa=wə=ræ~ræ *tsʰupa* *g-ə-dza-mə-ræ-jə.*
child=ERG=LNK~RED anger PREF-NACT-angry-EP-SENS-REP
After taking the child, it grew and grew up and became angry.

(39) *ʥʐæmba-næmkʰa=tʰə* *bəmbə* *dæ-ŋuə-sʰi* *ŋuə-ræ.*
PN-PN=DEM Bönpo PFV-COP.3-NMLZ COP.3-SENS
Dran pa nam mkha' (i.e., the child's father) was a Bönpo.

(40) *tʰə=ke=ræ* *xu* *lŋa=wə* *dæ-jə-wə,* *e* *tʰu-wə:*
DEM=DAT=LNK 3SG.ERG child=ERG PFV-say.3-QUOT DEM TOP.ERG=ERG
Then the child said, he said:

(41) *o* *bəmbə* *ləu* *v-dæ-me* *tʰi=je* *ŋuolə*
INTERJ Bönpo whatever inv-do-NMLZ:P DEM.GEN=GEN betrayal

dæ-və-sʰə-mə-ræ-jə.[112]
PFV-LV:do.3-IFR-EP-SENS-REP
Whatever the Bönpo do, he betrayed that (by doing the exact opposite).

(42) *a* *tʰə=tʰə~tʰə* *tʰævæ* *e=je* *xə=tʰə*
INTERJ DEM=TOP~RED NOW DEM=DEM.GEN DEM=TOP

ŋuə-mə-ræ-jə-ræ.
COP.3-EP-SENS-REP-SENS
Now he is said to be that of that (i.e., a Bodhisattwa in Tibetan Buddhism).

[112] Rather than being a quote expected from (40), the speaker reports in the third person.

(43) *pæma-mdʑone=tʰə~tʰə~tʰə~tʰə* *dʐæmba-næmkʰa=je* *lŋa*
PN-PN=TOP~RED~RED~RED PN-PN=GEN child

ŋuə-mə-ræ *jə-ræ.*
COP.3-EP-SENS say.3-SENS
It is said that Padmasambhava was the child of *dran pa nam mkha'*.

(44) *e=tʰə=ræ~ræ* *bændi* *vtsu-me=tʰə~tʰə~tʰə*
DEM=TOP=LNK~RED Buddhism found-NMLZ:A=TOP~RED~RED

pæma-mdʑone=wə=ræ *bændi* *rə-vtsʰu-sʰi* *ŋuə-mə-ræ-jə.*
PN-PN=ERG=LNK Buddhism PFV-found.PST.3-NMLZ COP.3-EP-SENS-REP
(This founder of Tibetan Buddhism,) it is said that Padmasambhava founded Tibetan Buddhism.

(45) *e=tʰə~tʰə~tʰə~tʰə* *tɕʰue* *sʰo* *æ-lə*
DEM=TOP~RED~RED~RED religion more one-CLF.INDEF

rə-vtsʰu sʰi *ŋuə-mə-ræ-jə.*
PFV-found.PST.3-NMLZ COP.3-EP-SENS-REP
He founded another religion.

(46) *bɔ=tʰə* *ŋuə-ræ.*
like=DEM COP.3-SENS
It was like this.

Retold English version

There was a person called *dran pa nam mkha'* One day, he said prayers to the God of Heaven, asking for a wish-fulfilling jewel. After finishing the prayers, he talked to his wife: 'Go to the rooftop to catch with a tray the wish-fulfilling jewel that will fall from the sky!' After this, *dran pa nam mkha'* went to the altar room to recite Tibetan sutras. While he was reciting, their child came up running the stairs. He was running too fast and unable to stop, so he was just about to fall down from the rooftop. The wife of *dran pa nam mkha'* who was on the rooftop with the tray in her hands thought: 'Our child is about to fall down!' She quickly threw the tray away and caught the child. Then, since there was no-one with a tray to receive the wish-fulfilling jewel, the God of Heaven took it up again, just when he was about to send it down. Enraged by this, *dran pa nam mkha'* scolded his wife and child: 'The wish-fulfilling jewel that we were just about to receive was lost because of you two!' Then he drove his wife and the child away from home.

Leaving home, the mother and the child walked on and reached a certain place at a lakeside. After reaching the lakeside they talked to each other, deciding to make some tea. The mother needed some firewood for boiling the tea, so she left her child at the lakeside and went to collect the firewood herself. Many lotus flowers were growing by the lakeside. The child climbed on one big lotus and played there. When the Sun starts heating in the morning, the lotus bud opens into a bloom. When the Sun sets, the flower closes up again. Evening came, and the flower closed while the child was still playing on it. His mother returned bringing back some firewood and noticed that the child was gone. When the mother came back, the child was nowhere to be seen. She searched everywhere. Unable to find him, in her rage, like crazy, she cut all the flowers and threw them into the lake. The child who was inside one of the lotus flowers was then carried away by the current.

Downriver, a chieftain's family without any children was reciting scripture, asking for a child. Their servant went down to the river to fetch some water. It was morning and the Sun had started heating, so the lotus flowers that had drifted downstream opened into a bloom again. In the river, the child appeared playing on a flower. After having seen this, the servant carried the water up to the chieftain's house and told the chieftain: 'A child is floating down the river on a lotus.' The rejoicing chieftain replied: 'At last, fortune has come to our household. Go and take that child from the river!' Then the servant took the child from the river and brought him to the chieftain. Then the chieftain asked the child: 'To whose house do you belong? Who are your father and mother?' The child said: 'I don't have a father and mother. I am *tɕʰəwo* Bodhisattwa.' Having heard this, the chieftain adopted the child into his household.

The child grew up and became very angry, because he still remembered how he had been in his mind unjustly abandoned by his original father *dran pa nam mkha'* who was a Bönpo practitioner. Because of this, whatever the Bönpo do, the child wanted to do the exact opposite and thus betrayed the religious tradition of his original father. Now he is revered as Padmasambhava, a major Bodhisattwa in Tibetan Buddhism. It is said that Padmasambhava was *dran pa nam mkha'*'s child. Padmasambhava thus founded Tibetan Buddhism; he founded a new religion.

15.5. Saying: Lightning bolts hitting people[113]

Geshiza sayings reflect the belief system and values of the language's speakers. Many sayings belong to the domain of traditional culture and are becoming endangered, like folktales. A saying concerning lightning bolts hitting people is given here as a sample, appearing embedded in explanatory discourse. A glossed line-by-line version is followed by a more idiomatic English translation at the end. The saying illustrates the Geshiza belief that being struck by a lightning bolt is a form of 'heavenly punishment' that results from impure thinking or bad behaviour.

[113] Consultant A, recorded in Balang Village in May 2017

Beliefs of thunder as the destroyer of the evil are widely spread among cultures around the world (Valk 2012: 43). Sayings and explanations concerning them are usually accompanied by statements, such as 'It is said like this, but we don't know if it is true or not'.

(1) *ŋæ=ɲi* *xo=tʰə* *<xeʂə>* *mæ* *gæ-qi* *tɕʰa=ræ*
1=PL.GEN DEM.LOC=TOP nevertheless rain IPFV-rain.strongly.PST when=LNK

qa=ɲə=ke *tʰɔ* *v-ra* *jə-me* *dæ-ŋuə.*
mountain=PL=DAT lightning.bolt INV-LV:hit.3 say-NMLZ:P PFV-COP.3
In our place, it was said that when it rains heavily, lightning bolts hit the mountains.

(2) *oja* *sʰi* *gæ-tɕʰæ* *oja* *bətɕəu* *gæ-tɕʰæ*
INTERJ tree ADJZ-big INTERJ centipede ADJZ-big

bɔ=tʰə=ke *tʰɔ* *v-ra* *jə-me* *dæ-ŋuə.*
like=DEM=DAT lightning.bolt INV-LV:hit.3 say-NMLZ:P PFV-COP.3
It was said that thunderbolts hit big trees and big centipedes.[114]

(3) *xaræ* *vdzi=ke=bɛ* *v-ra* *jə-me* *dæ=tʰə* *dæ=ŋuə=bɔ.*
but person=DAT=too INV-LV:hit.3 say-NMLZ:P PFV=TOP PFV-COP3=MOD
But it was said that (thunder bolts) hit people too.

(4) *vdzi* *gæ-ndʑi* *bɔ-tʰə=ke=ræ* *xaræ* *o* *sæmnoŋ*
person ADJZ-weird like-DEM=DAT=LNK CONJ INTERJ thinking

ŋuə-me[115] *mi-v-læ-me* *bɔ=tʰə* *vdzi*
be.good-NMLZ NEG-INV-LV.release-NMLZ:A like=DEM person

gæ-ndʑi=ke =tʰə *tʰɔ* *v-ra-mə=bɔ*
ADJZ-weird=DAT=TOP thunder.bolt INV-LV:hit.3-EP=MOD

g-ə-jə-me *dæ=tʰə* *dæ-ŋuə.*
PREF-NACT-say-NMLZ:P PFV=TOP PFV-COP3=MOD
It was said that the lightning bolts hit people who are strange and don't think in the proper manner (i.e., have bad thoughts).

[114] The centipedes are believed to have an electric charge that makes them vulnerable for being hit by lightning bolts during thunder.

[115] *ŋuə-me* has a conventionalized adverbial use 'well' different from the common function of *-me* as a nominaliser (see §6.2.3.1).

(5) *tʰɔ* *dæ-v-ra* *dæ-vdoŋ=tʰə* *mi-zda.*
lightning.bolt PFV-INV-LV:hit.3 PFV-see.1PL=TOP NEG- AUX.EXP.PERF
We haven't seen a lightning bolt hitting (people).

(6) *ŋui* *bɔ=tʰə* *g-ə-vɕæ-me* *dæ-ŋuə.*
before like=DEM PREF-NACT-say-NMLZ:P PFV-COP.3
In the past it was said like this.

Retold English version

In our place, it was said that lightning bolts hit the mountains during heavy rain. Lightning bolts also hit tall trees and large centipedes (since they are believed to have an electric charge), yet lightning bolts also hit people too! Lightning bolts hit people who are weird and have bad thoughts, but we haven't seen this happening. In the past, it was said like this.

APPENDIX I
Geshiza-English thematic glossary

Introduction

This glossary lists the central vocabulary of Geshiza mostly by arranging the items in a thematic order. Historical-comparative research on Trans-Himalayan languages has created increasing demand for resources of lesser-known languages. In addition to a documentative function, this concise glossary with approximately 2100 entries consequently attempts to answer to this demand by providing a short word list that can be utilised in comparative Horpa and Trans-Himalayan studies.

The thematic order of lexical organisation follows Dixon's (2010: 296) recommendation of presenting the lexicon of a described language in a thesaurus-like manner by dividing the entries into semantic groups. Despite their obvious benefits, such as easiness in cross-linguistic comparability, no common matrices of categorisation, such as the one established in *Handbook of Australian Languages, Vol. 1* (1979) and recommended by Dixon are adopted here. Rather than pigeonholing everyday lexemes to pre-established semantic categories, the attempt has been to create categories that are culturally relevant for the Geshiza. Also, it should be noted that closed word classes that have been dealt with exhaustively elsewhere in this work, such as pronouns, adjectives, and numerals, are not included in the brief glossary below.

The brevity of this grammatical description not only imposes limits to the number of items included, but also to the detail of illustrating their actual use and semantic range. This glossary thus omits the collected example sentences illustrating the listed lexical items. In addition, many lesser-used compound words are not listed. While the glossary is intended to give a concise introduction to the lexicon of the language, a more extensive dictionary of Geshiza is planned as a separate publication following this grammar. Additionally, readers familiar with Chinese may consult Duo'erji (1997) for an excellent collection of basic Geshiza vocabulary. Most findings in the glossary correspond either fully or in large part to those of Duo'erji, illustrating the similarity of fundamental lexical items across Eastern Geshiza dialects.

The entries are organised under the following categories: *Natural world* (A); *People* (B); *Cuisine and clothing* (C); *Tools and objects* (D); *Places and transportation* (E); *Intangible culture* (F), *Society and abstract concepts* (G); and *Verbs* (G). All the categories except the last are semantically motivated, and on few occasions, the same lexeme is listed in more than one category. Inside a given category, the presentation of the entries follows the following alphabetical order adopted in the present work:

a æ b ɕ ɕʰ d dz dʑ dʐ e ɛ ə f g ɣ i j k kʰ l m n ɲ ɳ ŋ ɴ o ɔ p pʰ q qʰ r s sʰ t tʰ ts tsʰ tɕ tɕʰ tʂ tʂʰ u v w x y z ʑ.

The order presentation deviates from the expected in temporal and locational nouns to list the lexical items in paradigmatically coherent order: e.g. yesterday, day before yesterday, two days before yesterday. Also, In the ordering of verbs, prefixes, such as the inverse prefix *v-*, are not taken into consideration, since they are not part of the verb root. Such entries, e.g. *v-tɕi* 'to ride' are consequently organised under their root consonant. Inside a given semantic group, compounds appear indented under the relevant roots. Finally, conversions (see §6.2.4) are double listed both in their nominal and verbal contexts.

The entries are morphologically analysed. Major suffixes are separated with a hyphen. Clear cases of morphologically complex words have their parts separated by a hyphen, even in cases where one of the parts is an identifiable fossilised bound morpheme. When a lexeme originates either from Tibetan or Chinese, the source is included, quoting conventionally Written Tibetan for Tibetan and Mandarin Chinese for Chinese sources regardless of the actual donor lect, such as Sichuanese Mandarin. Only Tibetan loanwords with higher certainty have been indicated as such, and further investigations will undoubtedly reveal more loanwords from the lexicon of Geshiza. The Tibetan and Himalayan Library Tibetan to English Translation Tool (http://www.thlib.org/reference/dictionaries/tibetan-dictionary/translate.php) was used for confirming the semantic ranges of several of the Tibetan loanwords in Written Tibetan, but the interpretations and possible mistakes herein are the author's own.

For the ease of reference, the following abbreviations appear in the glossary, repeated here from *Abbreviations used in glossing* at the beginning of the grammar:

AB	autobenefactive	POST	postposition
ADV	adverb	REFL	reflexive
APPL	applicative	SUFF	suffix
BM	bound morpheme	TL	Tibetan loanword
CL	Chinese loanword	V	verb
COP	copula	V1a	intransitive verb class 1a
DIM	diminutive	V2b	intransitive verb class 1b
IDEO	ideophone	V2a	intransitive verb class 2a
N	noun	V2b	intransitive verb class 2b
HPREF	historical prefix	V3a	transitive verb class 3a
HSUF	historical suffix	V3b	transitive verb class 3b
NEG	negator	V4	transitive verb class 4
NEG.COP	negative copula	VBLZ	verbaliser
NMLZ	nominaliser	X ~ Y-	stem alternation
NUM	numeral	?	uncertainty

A. Natural world

A1. Nature

ą̂bu (N) sand

ą̂næn (N) sky; syn. *ærə-mæ-rŋə* '1. sky, 2. weather'; *mæ* '1. rain 2. sky'; *mæ-mqo* 'sky'; *mæ-rŋə* '1. sky 2. weather'; *sta-mqo ~ staɴqo* 'sky'; TL *gnam* 'sky'

ą̂ʑo- ~ ą̂ʑæ- (N, BM) (small) stone

ą̂ʑæ-lja (N-?) small stone (e.g. of the size suitable for throwing)

ą̂ʑæ-ɲa (N-V) black or dark-coloured stone

ą̂ʑæ-pær (N-V) flat stone (commonly used for building)

ą̂ʑæ-pʰru (N-V) white stone, quartz; syn. *rgæ-pʰru* 'ibid.'

ą̂ʑo-rgæ-væ (N-N-HSUF) small stone

be (N) flood; (V1b) to flood, overflow

çuæ (N) pond, pool, small body of water

çʰævtsu (N) flash of lightning

lmu (N) hailstone

loŋba ~ loŋbəu (N) valley, place, plain (where most people live (in contrast to mountains); TL *lung pa* 'valley, homeland'

lvo (N) ice

mæ (N) 1. rain 2. sky; syn. *ą̂næn* 'sky'; *ærə-mæ-rŋə* '1. sky, 2. weather'; *mæ-rŋə* '1. sky 2. weather'; *mæ-mqo* 'sky'; *sta-mqo ~ staɴqo* 'sky'

mæ-mqo (N-N?) sky; syn. *ą̂næn* 'sky'; *ærə-mæ-rŋə* '1. sky, 2. weather'; *mæ* '1. rain 2. sky', *mæ-rŋə* '1. sky 2. weather'; *sta-mqo ~ staɴqo* 'sky'

mæ-rŋə (N-V) 1. sky 2. weather, lit. 'blue sky'; syn. *ą̂næn* 'sky'; *ærə-mæ-rŋə* 'sky, weather', *mæ* '1. rain 2. sky', *mæ-mqo* 'sky'; *stamqo ~ staɴqo* 'sky'

ærə-mæ-rŋə (N?-N-V) 1. sky 2. weather; syn. *ą̂næn* 'sky'; *mæ* '1. rain 2. sky', *mæ-mqo* 'sky'; *mæ-rŋə* 'sky, weather'; *sta-mqo ~ staɴqo* 'sky'

mbru (N) 1. thunder 2. dragon; likely TL *'brug* 'ibid.'

mæ-ŋær-mbru (N-V-N) thunder not accompanied by rain, lit. 'sky-not.rain-thunder'

mdʑa ~ ndʑa (N) rainbow; likely TL *'ja'* 'ibid.'

mkʰə (N) smoke; (V1a) to be smoky, (V1b) to suffer from smoke

mtsʰo (N) lake; TL *mtsho* 'ibid.'

ndæmba (N) mud, sometimes also used for cement or plaster; possibly TL from *'dam bag* 'ibid.', yet the expected outcome would be **ndæmbə*

ntçʰædʑo (N) torrential rain

nzrə (N) dew; (V1b) to form dew

ɲæ-ɣæ (N?-N) mountain pass; cf. *ɣæ* 'door, gate'

ŋkʰæ-va (N-HSUF) snow

ŋkʰæ-lvo (N-V) snow that has become ice-like (e.g. on a road), lit. 'snow-ice'

ŋkʰæ-xu (N-?) heavy snow

pʰəslə (N) dust

popo (N) hill, eminence; syn. *zgoŋ* 'ibid'

pʰu (N) gorge; possibly TL *phu* 'the upper part of a sloping valley, foothills, higher ground'

wrə-pʰu (N-N) gorge that is a water source; i.e. has water flowing down into the valley from the mountains; syn. *tçʰə-*

pʰu 'ibid.'

tɕʰə-pʰu (N-N) gorge that is a water source; i.e. has water flowing down into the valley from the mountains; syn. *wrə-pʰu* 'ibid.'

qa ~ qæ- (N) mountain (generally less steep than *ra ~ ræ-* 'cliff, steep mountain' and with houses on, while *ra ~ ræ-* are commonly not inhabited)

qæ-ɣuə (N-N) summit, mountain top, lit. 'mountain-head'

qæ-wɕo (N-N) foot of a mountain, lit. 'mountain-floor, lower part of a mountain'

qlo (N) valley, ravine

ra ~ ræ- (N) cliff, steep mountain

ræ-wvo (N-N?) mountain cave

rdza (N) rocky land, stony soil

rdʑæmtsʰo (N) ocean; TL *rgya mtsho* 'ibid.'

rgæ- (N-, BM) stone

rgæ-ɲji (N-V) red stone

rgæ-ɲa (N-V) black, dark-coloured stone; syn. *ʑʑæ-ɲa* 'ibid.'

rgæ-pʰru (N-V) white stone, quartz; syn. *ʑʑæ-pʰru* 'ibid.'

rgæ-væ (N-HSUF) stone (general term)

rɲo (N) river

rtso (N) cold season

rtɕʰo ~ rtɕʰæ- (N) clay, dirt (on the ground); near syn. *tsʰə* 'dirt (material on the ground)'; *vɕæ* '(fine) dirt'

rtɕʰæ-ɲji (N-V) red clay, red dirt

rtɕʰæ-ɲa (N-V) dark clay, dark dirt

slu- (N-, BM) Moon

slu-næ (N-N) moonlight; a historical compound *slu-wnæ* 'moon-(sun)light' with the *u-w* sequence simplified

slu-va (N-HSUF) Moon

sŋar (N) frost

spo (N) grassland, treeless level dry ground, lawn; (V1b) to dry

spo-tʰaŋ (N-N?) large grassland field

sta-mqo ~ staɴqo (N-N?, latter form assimilated) sky (cf. PTH *m-ka-n 'sky, heavens'; syn. *anæn* 'sky'; *mæ* '1. rain 2. sky'; *ærə-mæ-rŋə* 'sky, weather'; *mæ-rŋə* '1. sky 2. weather'; *mæ-mqo* 'sky'

sʰənɔ (N) forest; TL *shing nags* 'ibid.'

tʰɔ (N) lightning bolt; TL *thog* 'lightning bolt'

tsætɕʰə (N) hot spring; TL *tsa chu* 'ibid.'

tsʰə (N) dirt (material on the ground); near syn. *rtɕʰo ~ rtɕʰæ-* 'clay, dirt (on the ground)'; *vɕæ* '(fine) dirt'

tɕʰə- (N, BM) water; syn. *wrə* 'ibid'; TL *chu* 'ibid.'

tɕʰə-rbərboŋ (N-N?) current with wave formation (e.g. in the middle of a river)

tɕʰə-ltɕʰəu ~ tɕʰə-lpʰjəu (N-N?) wave

tɕʰə-mɲu (N-N?) water that surfaces from underground, spring

tɕʰə-qæl (N-V) water puddle

vɕæ (N) (fine) dirt; near syn. *rtɕʰo ~ rtɕʰæ-* 'clay, dirt (on the ground)'; *tsʰə* 'dirt (material on the ground)'

ʑsær-vɕæ (N-N) gold grain; cf. *ʑsær* 'gold'

vʑar (N) warm season

wbə (N) Sun; (V1b) to be dazzled (not necessarily by the Sun, but also by other sources of light)

wbə-zbri (N-?) sunlight

wdʑəu (N) conflagration (e.g. a mountain forest or a house ablaze); (V1b) to conflagrate

wlæ (N) wind

wlæ-mbæ (N-?) strong wind, storm

wmə (N) fire
wnæ (N) (sun)light
wrə (N) water, liquids for drinking; syn. *tɕʰə-* 'water'
mæ-wrə (N-N) rain water
sa-wrə (N?-N) rivulet, mountain stream
zdo- (N, BM) cloud; (V1b) to be cloudy, overcast
zdo-ma (N-HSUF) cloud (general term)
zdo-ɲji (N-V) red cloud, coloured cloud (e.g. before sunset)
zdo-ɲa (N-V) dark cloud, thunder cloud
zbləu (N) vapour
zgoŋ (N) hill, eminence; syn. *popo* 'ibid.'
zgre ~ **wgre** (N) star
zui (N) ember

A2. Resources, raw materials, and energy

ą̂bu (N) sand
(ą̂)lærtsə (N) musk; TL *gla rtsi* 'ibid.'
ą̂sær (N) gold; TL *gser* 'ibid.'
ą̂ʐo- ~ **ą̂ʐæ-** (N, BM) (small) stone
ą̂ʐæ-bji (N-V?) stone slab (generally larger than *æʐæ-pær*)
ą̂ʐæ-pær (N-V) flat stone (commonly used for building)
ɕʰæl (N) glass; TL *shel* 'ibid.'
ɕʰɔ (N) piece of wood used in house building, having the approximate length of an adult person and approximate thickness of a child's arm
dʑæne (N) lead (metal); possibly TL *zha ne* 'ibid.'
gælba (N) wooden plank, board
me (N) ink; CL *mò* 墨 'ink stick, China ink'
ɳdʐæ- (N, BM) log
ɳdʐæ-le (N-HSUF) log
ɳdʐæ-mæ (N-HSUF) big log
ɳdʐæ-tsʰo (N-V) small log, lit. 'thin-log'
qæʐe-mælɔ (N-N?) mica; cf. *qæʐe* 'crow', used in the compound probably because of the belief that crows are attracted to and collect shiny objects
rŋən (N) silver; TL *dngul* 'ibid.'
rɔ (N) brass; TL *rag* 'copper, brass'
ʂuini (N) cement, concrete; CL *shuǐní* 水泥 'ibid.'
təkua (N) fatwood
tiæn (N) electricity; CL *diàn* 电 'ibid.'
mtsʰə (N) paint; (V3b) to paint
tɕo (N) iron; possibly TL *lcags* 'ibid.'; irregular sound correspondence instead of the expected **tɕɔ* indicates the word has been either borrowed in a different layer of Tibetan loanwords, from a different Tibetic lect than most other Tibetan loanwords, or through an unidentified mediating language
zoŋ (N) copper; TL *zangs* 'copper, brass'
ʈʂuan (N) brick; CL *zhuān* 砖 'ibid.'

A3. Trees and plants

ɕʰantəu ~ **ɕʰantɔ** (N) fruit; TL *shing tog* 'fruit'
læ-rmi (N?-N) usnea, Spanish moss; a historical compound with the meaning 'tree-hair'; cf. Stau ***lə-pʰu*** 'tree'
lba- (N, BM) leaf
lba-la (N-HSUF) 1. leaf 2. money (extended meaning)
sʰə-lba (N-N) tree leaf
lbə (N) stalk (of a crop plant, used only of wheat and rice)

ʑe-lbə (N-N) wheat stalk

mbrɛ-lbə (N-N) rice stalk

mætɔ ~ mətɔ (N) flower; TL *me tog* 'ibid.'

pælma-mætɔ (N-N) lotus flower; TL *pad ma* 'lotus', *me tog* 'flower'

ndʑɔma-s^{h}i (N-N) willow; initial part of the compound TL *lcang ma* 'willow'

q^{h}iq^{h}a (N) mixture of many types of grass and hay on the field not consumed by people, but used as animal fodder

rgo-dzi (N-N) types of grasses, herbs, and hay used for cow fodder, lit. 'cow-food'

rq^{h}uə (N) shell (e.g. of a walnut), hollow (e.g. like a dead tree that has become shell-like by losing all the material inside); also used of fauna; syn. *rq^{h}uə-la* 'ibid.'

s^{h}ə-rq^{h}uə (N-N) hollow tree trunk

rq^{h}uə-la (N-HSUF) shell (e.g. of a walnut), hollow (e.g. like a dead tree that has become shell-like by losing all the material inside); also used of fauna; syn. *rq^{h}uə* 'ibid.'

s^{h}ə-rq^{h}uə-la (N-N-HSUF) hollow tree trunk

rura (N) grass

sɲɔ-lmæ (N-HSUF) wheat spike, part of wheat with grains

sɲɔ-va (N-HSUF) 1. awn of wheat 2. fishbone

sq^{h}a (N) roots

s^{h}əs^{h}e (N) berry

s^{h}i ~ s^{h}ə- (N) tree, wood, firewood

s^{h}ə-ndzo (N-V) tree stump; cf. *ndzo* 'to sit, stay'

s^{h}ə-ɲoŋ (N-N) edible tree fungus, lit. 'tree-ear'

s^{h}ə-p^{h}o (N-N) tree

s^{h}ə-sq^{h}a (N-N) tree roots

s^{h}ə-var (N-N) tree branch

s^{h}i-dʑæ (N-N) tree bark; syn. *s^{h}i-dʑæ-læ* 'ibid.'

s^{h}i-dʑæ-læ (N-N-HSUF) tree bark; syn. *s^{h}i-dʑæ* 'ibid.'

s^{h}i-lŋa (N-DIM) sapling

tælæ (N) pine

tælæ-s^{h}i (N-N) pine tree

tælæ-qætælɔ (N-N) pine cone; cf. *qætælɔ* 'round thing'

tældzəu (N) resin

t^{h}o-s^{h}i (N?-N) mulberry tree

t^{h}oŋk^{h}ar-s^{h}i (N?-N) birch tree

va-dzi (N-N) types of grasses, herbs and hay used for pig fodder, lit. 'pig food'

vç^{h}ə (N) seed

vso (N) dry grasses, herbs and hay used for animal fodder

woŋbolapa (N) cactus; TL *dbang po lag pa* 'plant with an arm-shaped root' (*dbang po* 'chief, lord, king, possessed of power'; *lag pa* 'hand'), applied to the plant in the Geshiza homeland either because of perceived similarity with the human hand or due to Chinese influence (*xiānrénzhǎng* 仙人掌 'cactus, lit. hand of an immortal, hand of a celestial being')

wtç^{h}ə (N) thorn

wtç^{h}ə-s^{h}i (N-N) thorny bush

wvə (N) wild barley

wʑə (N) bamboo

wʑə-s^{h}i (N-N) bamboo tree

zəu (N) ginseng

zjəu (N-N) juniper

zjəu-s^{h}i (N-N) juniper tree

A4. Agricultural produce

aʑən (N) late corn, second crop of corn; TL *a zhom* 'corn'

bræwə (N) buckwheat; TL *bra bo* or *bra'o* 'ibid'

ɕʰantəu ~ ɕʰantɔ (N) fruit; TL *shing tog* 'fruit'

ɕʰæ-smæn (N-N) coriander, lit. 'god-medicine', likely TL (dialectal and non-identified) *lha sman* 'coriander'

ɕi ~ ɕæ- (N) highland barley

fæntɕʰue (N) tomato; CL *fānqié* 番茄 'ibid.'

jantsʰon (N) onion; CL *yángcōng* 洋葱 'ibid.'

jime (N) corn; CL *yùmǐ* 玉米 'ibid.'

joŋji (N) potato; CL *yángyù* 洋芋 'ibid.'

kærpə (N) sweet pomegranate

kʰæmbə (N) sweet apricot; TL *kham bu* 'peach, apricot'

kʰæmtɕər (N) sour apricot; TL *kham skyur* 'sour apricot, bitter apricot'

læbə (N) radish; CL *luóbo* 萝卜 'ibid.'

lə (N) pear; TL *li* 'ibid.'

loŋkua (N) pumpkin CL *nánguā* 南瓜 'ibid.'

ltsʰəu (N) Sichuan pepper

mbrɛ (N) rice; TL *'bras* 'ibid.'

mbrə (N) grain, cereals; TL *'bru* 'grain, crops'

mbrə~mbræ (N~RED) all kinds of cereals

pʰiŋko (N) apple; CL *píngguǒ* 苹果 'ibid.'

pʰutʰəu (N) grapes; CL *pútao* 葡萄 'ibid.'

qʰælo (N) walnut

re ~ ræ- (N) turnip

ræ-ɣuə (N-N) 1. part of turnip that surfaces from the ground, also used as a pickled dish; cf. *ɣuə* 'head'

ræ-vɕʰi (N-N) underground taproot of a turnip

rgæn (N) early corn; planted approx. in May

rgəu (N) wheat (the seeds that have been separated after the harvest)

rtsʰəu (N) crops

sətɕitu (N) green beans; CL *sìjìdòu* 四季豆 'ibid'; cf. *zbro* (N) boiled dried green beans

skuə (N) Chinese leek

wo-skuə (N-N) garlic; lit. 'home Chinese leek'

sɲo ~ sɲæ- (N) pea, bean (general term)

sɲæ-ʑu (N-?) pea

rjæ-sɲo (N?-N) broad bean

stʰɔ (N) bean

stʰɔ-ɲa (N-V) black (soy) bean

tsoŋ (N) green onion; TL *tsong* 'onion, green onion'

tɕʰetsə (N) eggplant; CL *qiézi* 茄子 'ibid.'

væ-wɕʰə (N-N?) distillers grains (of corn, a by-product of distillation commonly used for pig food); cf. *va ~ væ* 'pig'

xɛtso (N) red pepper, chili; old CL likely either from *hēijiāo* 黑椒 'black pepper' or from *hújiāo* 胡椒 'pepper, black pepper'

xoŋkua (N) cucumber; CL *huángguā* 黄瓜 'ibid.'

xuasən (N) peanut, groundnut; CL *huāshēng* 花生 'ibid.'

zæmbər (N) sour pomegranate

zdʑo (N) peach

ʑe (N) wheat (on the field)

A5. Wild animals

(ą̊)loŋbutɕʰe (N) elephant; TL (dialectal and non-identified) *glang bu chen* ‘elephant, lit. big young bull’, cf. WT *glang chen* ‘elephant, lit. big bull’

ą̊jə (N) fish

ą̊værvi (N) bat

ą̊ʑi (N) tiger; syn. *stɔ*; possibly referred to a different species in the past, but consciousness about the difference between the two has become vague; TL *gzig* ‘leopard’

bə- (N-, BM) bug, insect

bə-dʑi (N-V) worm, especially tapeworm, lit. ‘long-bug’

mæ-ŋær-bə-dʑi (N-V-N-N) earthworm

bə-kru (N-N?) firefly

bə-rbu (N-N) bee

bə-tɕəu (N-N?) centipede

bə-ʑo (N-N?) insect (general term)

bə-ʑo-bə-rbe ([N-N]-[N-?]) all kinds of insects, many insects

bjærgæ (N) bird of prey (variously reported as eagle or hawk); TL *bya rgod* ‘bird of prey’.

dʑæskaska (N) magpie

dʑævdʑo (N) generic term for birds excluding the large birds of prey

dʑywæ ~ dʑyæ (N) fox

grɔgrɔ (N) spider; possibly TL *grog* ‘ant’ with reduplication

kuku (N) cuckoo

kʰji (N) pigeon, dove

kʰo (N) owl

ləŋkær (N) parrot; possibly different species from *tʰowu* ‘ibid.’

ltɕəltɕi ~ ltɕəltɕy (N) mosquito

mbila (N) snail

mbru (N) 1. dragon 2. thunder; likely TL *'brug* ‘ibid.’

mdʑo (N) nest

wəzə-mdʑo (N-N) bird nest

mpʰri (N) snake

ɳ̊dʑ̊æɕʰə (N) bedbug; TL *'dre shig* ‘ibid.’

papu (N) butterfly, moth

pʰɔ-rgæ (N-N) wild boar; syn. *pʰɔrgæ-va* ‘ibid.’, *qa-va* ‘ibid.’

pʰɔ-rgæ-va (N-N-N) wild boar; syn. *pʰɔrgæ* ‘ibid.’; *qa-va* ‘ibid.’

qa-rgo (N-N) wild cow, lit. ‘mountain-cow’

qa-va (N-N) wild boar, lit ‘mountain-pig’; syn. *pʰɔrgæ* ‘ibid.’; *pʰɔ-rgæ-va* ‘ibid.’

qæʑe (N) crow

qərŋa (N) grain weevil (a bug eating stored grain)

qʰala (N) Chinese *huamei* (bird)

rədɔ (N) beast, animals living free on the mountains, untamed animals; syn. *xtɕænzæn* ‘wild animal, beast’; TL *ri dags* ‘beast’

rjə (N) wild horse; cf. *rji* ‘horse’

rmæbja (N) peacock; TL *rma bya* ‘ibid.’

rtsæ (N) deer

rtsæ-mæ (N-HSUF) female deer

rtsæ-væ (N-HSUF) male deer

rzəu (N) leopard

skʰrəu (N) ant

skʰrəu-rastu (N-N) ant egg

spe (N) marmot

spjaŋkə (N) wolf; TL s*pyang ki* ‘ibid.’

spoɴqæl (N) frog

sræn (N) otter; TL *sram* ‘ibid.’

stɔ (N) tiger; TL *stag* ‘ibid.’

sʰeŋgi (N) lion; TL *seng ge* ‘ibid.’

sʰi-qɔqɔ (N-IDEO) woodpecker; cf. *qɔqɔ* ‘ideophone of knocking’

tʰowu (N) parrot; possibly different species from *ləŋkær* 'ibid.'
tɕoŋka (N) black bulbul
vtɕə (N) mouse, rat
wæle (N) rabbit
wɕəu (N) louse
wəzə (N) bird; possibly a historical diminutive with *-zə*
we-wəzə (N-N) sparrow, lit. 'house-bird'
wəza (N) fly (insect)
wla (N) bird of prey (variously reported as eagle or hawk); if TL, *glag* 'eagle, hawk, vulture' would be expected to have evolved into *wlə* (see §3.2.1)
wo ~ we (N) bear
wo-mæ (N-HSUF) female bear
wo-væ (N-HSUF) male bear
wrə-bjo (N-V) dragonfly, lit. 'water-fly'
wzəza (N) monkey
xtɕænzæn (N) wild animal, beast; syn. *rədə* 'beast, animals living free on the mountains, untamed animals'; TL *gcan gzan* 'ibid.'
ʑəwo (N) argali
zli ~ zlə- (N) male musk deer
zlə-mæ (N-HSUF) female musk deer

A6. Domestic animals

ɑ̨jɔ (N) (male) yak; TL *g.yag* 'ibid.'
(-)bə(-), (N, BM) bovine regardless of sex
bə-rgi (N-N?) ox, bull (smaller than *bə-væ*)
bə-væ (N-HSUF) ox, bull (larger than *bə-rgi*, about the same as *rtsʰæ-bə*)
bræ-bə (N?-N) young cow, usually but not necessarily heifer, female cow that has not given birth to a calf
ɖʐi̱ (N) mule; TL *drel* 'ibid.'
rtæ-ɖʐi̱ (N-N) horses and mules; TL *rta drel* 'horses and mules, pack animals'
guæ-le (N-DIM?) calf, young cow; originating from **rguæ-le* with dropping of the preinitial consonant; syn. *rgə-tʰa* 'ibid.'; *rguæ-lŋa* 'ibid.'
guæ-lɣuə (N-HSUF) young cow bull; originating from **rguæ-lɣuə* with dropping of the preinitial consonant
jatsə (N) duck; CL *yāzi* 鸭子 'ibid.'
ji ~ jæ- (N) sheep
jæ-lɣuə (N-HSUF) ram (male sheep); syn. *jæ-rnə* 'ibid.'
jæ-lŋa (N-DIM) lamb
jæ-mæ (N-HSUF) ewe
jæ-rnə (N-?) ram (male sheep); syn. *jæ-lɣuə* 'ibid.'
kakoŋ (N) cock, rooster (rare); possibly old CL *jīgōng* 鸡公 'ibid.'
kæba (N) domestic animal with a large colour spot on the face; near syn. *ndzə-le* 'domestic animal with a small colour spot on the face'
kəta (N) dog; syn. *(-)kʰə(-)* 'ibid.'
kuərə (N) ass, donkey
(-)kʰə(-) (N) dog; syn. *kəta* 'dog'; TL *khji* 'ibid,'
kʰə-lɣuə (N-HSUF) male dog
kʰə-mæ (N-HSUF) female dog, bitch
kʰə-ntɕʰær (N-V) stray dog; cf. *ntɕʰær* 'to go aimlessly from place to place'
rŋa-kʰə (N-N) hunting dog; cf. *rŋa* 'to hunt'
we-kʰə (N-N) guard dog at home, lit. house-dog'
lə- (N, BM) cat; syn. *tsələ* 'ibid.'; possibly from Amdo Tibetan *lo'u* 'ibid.'
lə-lɣuə (N-HSUF) male cat

lə-mæ (N-HSUF) female cat

maxe (N) water buffalo; TL *ma he* 'ibid.'; syn. *wrə-lgo* 'ibid.'

ndzə-le (N-HSUF) domestic animal with a small colour spot on the face; near syn. *kæba* 'domestic animal with a large colour spot on the face'

putse (N) grasshopper

ra- (N, BM) chicken; syn. *wərja* 'ibid.'

ra-væ (N-HSUF) cock, rooster

ra-mæ (N-HSUF) hen

rgo ~ rgə- ~ -lgo (N) cow

rgə-t^{h}a (N) calf, young cow; often used in the diminutive form *rgə-t^{h}a-lŋa*; syn. *guæ-le* 'ibid.'; *rguæ-lŋa* 'ibid.'

bærə-rgo (N-N) bovine domestic animals of nomadic Tibetans, lit. 'cow of nomadic Tibetans'; typically refers to *ajɔ* '(male) yak' and *zo* 'female yak'

wrə-lgo (N-N) water buffalo, lit. 'water-cow'; syn. *maxe* 'water buffalo'

rguæ- (N, BM) cow, possibly an allomorph of *rgo ~ rgə- ~ -lgo*; see also *guæ-le* 'calf, young cow'; *guæ-lɣuə* 'young cow bull'

rguæ-lmæ (N-HSUF) young heifer

rguæ-lŋa (N-DIM) calf, young cow; not used universally in Eastern Geshiza; syn. *guæ-le* 'ibid.', *rgə-t^{h}a* 'ibid.'

rguæ-s^{h}ə (N-?) cattle; used of many cows together and not of individual animals

rji ~ ræ- (N) horse

ræ-kwe (N-N?) foal, syn. *rji-lŋa* 'ibid.'

ræ-mæ (N-HSUF) mare

rji-lŋa (N-DIM) foal; syn. *ræ-kwe* 'ibid.'

rŋæmu (N) camel (archaic); TL *rga mong* 'ibid.'

rtæp^{h}o (N) stallion, male horse; TL *rta pho* 'ibid.'

rtæmo (N) mare, female horse TL *rta mo* 'ibid.'

rts^{h}æ- (N, BM) cow

rts^{h}æ-bə (N-N?) ox, bull (older and bigger than *bə-rgi*, about the same as *bə-væ*)

rts^{h}æ-ŋæ (N-N?) dairy cow, cow that has given birth to calves and gives milk

tsələ (N) cat; syn. *lə-* 'ibid.'

ts^{h}æ (N) goat

ts^{h}æ-lɣuə (N-HSUF) buck, male goat; syn. *ts^{h}æ-tæpɔ* 'ibid.'

ts^{h}æ-ji (N-N) goats and sheep

ts^{h}æ-lmæ (N-HSUF) doe, female goat

ts^{h}æ-tæpɔ (N-N?) buck, male goat; syn. *ts^{h}æ-lɣuə* 'ibid.'

tɕispa (N) mount (typically horse); possibly TL *chibs pa* 'mount, horse' in which the expected **tɕ^{h}ispa* has been subject to analogy from the verb *v-tɕi* 'to ride'

va ~ væ- (N) pig

væ-lɣuə (N-HSUF) boar, male pig

væ-lmæ (N-HSUF) sow, female pig

væ-ɲa (N-V) dark-skinned pig

væ-p^{h}ru (N-V) light-skinned pig

væ-zi (N-DIM) piglet

wərja (N) chicken; syn. *ra* 'ibid.'

zo (N) female yak

A7. Animal-specific body parts

dʑə (N) fangs, tusks (e.g. of an elephant

(a̱)loŋbutɕe-dʑə (N-N) elephant tusks

dʑədʑa (N) animal skin, leather

lmu (N) cockscomb

ndzə (N) colour spot on the face of an animal; TL *'dzi* 'ibid.'

ŋgɔ (N) narrow point in the body (e.g. in the

body of an ant) or in antlers, can also be used of the human body (e.g. the narrower parts of fingers between the joints); (V1b) to have a narrow part in the body

qæmbəla (N) horns, antlers

qrə (N) horns, antlers

rtsæ-qrə (N-N) deer antlers

pʰævæl (N) (horse) mane

quæləu (N) hoof

rŋæma (N) tail; likely TL *rnga ma* 'ibid.'

rqʰuə (N) shell (e.g. of an insect), old skin that a snake has shed; also used of flora; syn. *rqʰuə-la* 'ibid.'

mpʰri-rqʰuə (N-N) old skin that a snake has shed; syn. *mpʰri-rqʰuə-la* 'ibid.'

rqʰuə-la (N-HSUF) shell (e.g. of an insect), old skin that a snake has shed; also used of flora; syn. *rqʰuə* 'ibid.'

mpʰri-rqʰuə-la (N-N-HSUF) old skin that a snake has shed; syn. *mpʰri-rqʰuə* 'ibid.'

rtsæ-smæn (N-N) deer antler velvet, lit. 'deer-medicine'

spə (N) animal fur (especially of cows); possibly TL *spu* 'hair, fur'

smәu (N) wool; (V1b) to grow, have wool

jæ-smәu ~ ji-smәu (N-N) sheep wool

tsʰæ-smәu (N-N) goat wool

snæ-ldzoŋ (N-N?) elephant trunk; cf. *sni ~ snæ-* 'nose'

sɲɔ-va (N-HSUF) 1. fishbone 2. awn of wheat

vdzor (N) wing (of a bird etc.), fish fin

vgær (N) hind leg of an animal; often also used as a food term

vgær-ʑa (N-N) front and hind legs of an animal, conventionally used about a piece of pork with all legs attached

vkra-la (V?-HSUF) pattern on the skin of a domestic animal; possibly a TL from *bkra* 'spotted, multicoloured, variegated'

B. People

B1. Human body and body parts

ą̂mo (N) mouth

ą̂mær- (N, BM) area around the mouth

ą̂mær-dʑæ (N-N?) lips

ą̂mær-mi (N-N) male facial hair: beard and moustache'

tɕʰa-mær-mi (POST-N-N) moustache, lit. 'upper facial hair'

və-mær-mi (POST-N-N) beard, lit. 'lower facial hair'

ą̂sʰu (N) anus, rectum (offensive)

ą̂tʰə (N) buttocks (less offensive than *asʰu*, not used of animals

ą̂zupo ~ ą̂zupu (N) body; syn. *ləspə* 'ibid.'; TL *gzugs po* 'ibid.'

blæ (N) thigh

ɕeɕe (N) wrinkle (e.g. on the face)

ɕə (N) 1. tooth 2. blade of a tool or a weapon

reju-ɕə-mæ (N?-N-HSUF) front teeth

dʑæ- (N, BM) skin

dʑæ-læ (N-HSUF) skin

dʑəu (N) waist, back (especially lower back of the body; used of both people and animals)

gəu (N) leg; syn. *rko* 'ibid.'

ɣælɔ (N) chest

ɣuə (N) head

ɣuə-pʰo (-N) hair; possibly lit. 'head-

plant', cf. *sʰə-pʰo* 'tree'
ɣuə-pʰo-sqʰa (N-N-N) hair root
kæpəla (N) forehead
kʰa ~ kʰæ- (N) mouth; *amo* used for the organ while *kʰa ~ kʰæ-* mostly used in set expressions, e.g. *kʰa tɕɔ* (mouth to.be.pleasant) 'to be a smooth talker', and in folklore
ldzə (N) nail (general term)
noɣuə-ldzə (N-N) fingernail
rko-ldzə (N-N) toenail
ləspə (N) body; syn. *ʑupo ~ ʑupo* 'ibid.': TL *lus po* 'ibid.'
lguə (N) testicles
lkəu (N) elbow; syn. *ʑæ-lkəu* 'ibid.'
ʑæ-lkəu (N-N) elbow; syn. *lkəu* 'ibid.'; cf. *ʑa ~ ʑæ-* 'hand'
lŋa-jo (N-N) womb, uterus, possibly etymologically lit. 'child-home'
lŋæ-zə (N-DIM or N-N) infant
lərdə (N) pulse; TL *lag rtsa* 'ibid.'
lva (N) shoulder; (V4) to carry on shoulders
mæ- (N, BM) foot
mæ-lba (N-N) sole
mæ-sən (N-N?) heel
mæ-sqʰue (N-?) ankle bone (protrusion of bone in ankle, not used of the joint itself: *rko-rtsʰəu* (N-N) ankle joint)
me (N) mole (on the body)
məu ~ mæ- (N) eye
mæ-ɣua (N-V?) big wide eyes
mæ-tsər (N-V?) small slanted eyes; cf. Dandong Geshiza *vtsər* 'to be narrow'
məu-ɲa (N-V) pupil (in the eye); lit 'eye-black'
məu-rmi (N-N) eyebrow, eyelash; lit. 'eye-hair'
məu-tɕʰələlə (N-N?) eyeball
mtɕʰækʰuə-tʰəu (V?-N) 'armpit'; syn. *mtɕʰækʰuə-vəu* 'ibid.'; cf. *mtɕʰækʰuə* (V4) to carry under one's armpit
mtɕʰækʰuə-vəu (V?-N) 'armpit'; syn. *mtɕʰækʰuə-tʰəu* 'ibid.'; cf. *mtɕʰækʰuə* (V4) to carry under one's armpit
no (N) rib
no-ɣuə (N?-N) finger, toe (general term)
ʑa-no-ɣuə (N- N?-N) finger
rko-no-ɣuə (N- N?-N) toe
nunu (N) breasts
nwa (N) brain
ɲoŋ (N) ear
noŋ-tɕʰə (POST-N?) internal organs; cf. *noŋ* 'in(side)'
pətsə (N) penis
quəmɲo (N) nape, back of the neck
rguə-lu (N?-HSUF) fist; to hit with a fist
rko (N) leg, foot; syn. *gəu* 'ibid.'
rko-ʑa (N-N) hands and legs, the four limbs
rŋa ~ rŋæ- (N) face; syn. *rŋa-go* 'ibid.'
rŋæ-go (N-N?) face; syn. *rŋa* 'ibid.'
rŋæ-məu (N?-N) knee; lit. probably historically 'knee-eye', **rŋæ* not used independently in contemporary Geshiza
rqua (N) throat, also used in an extended sense as a synonym for *vʑe* 'neck'
rtsa (N) vein; possibly TL *rtsa* 'vein'
rtsʰe (N) lungs
rtsʰe-rqua (N-N) trachea, windpipe
rtsʰe-rqua-qætælɔ (N-N-N) Adam's apple; cf. *qætælɔ* 'round thing'
rtsʰəu (N) joint (in the body)
rko-rtsʰəu (N-N) ankle joint
noɣuə-rtsʰəu (N-N) joints in fingers
ʑæ-rtsʰəu (N-N) wrist
rvæle (N) kidney

rvæq^{h}i (N) back (only of people, not used of animals)
skrə (N) gall bladder
sni ~ snæ- (N) nose
snæ-mtso (N-V) sharp nose
snæ-pær (N-V) flat nose
spær (N) spleen
stə (N) vagina; syn. *tɕ^{h}əmbu* 'ibid.'
s^{h}e$_{1}$ (N) blood
s^{h}e$_{2}$ (N) liver
təlɣue (N) calf (in the body)
tɕ^{h}əmbu (N) vagina; syn. *stə* 'ibid.'
tɕ^{h}əri (N) bone
vəu (N) belly, stomach
vəu-ltja (N-N?) navel, belly button; likely etymology 'belly-connector'; cf. *lt^{h}ja* (V3b) to connect (different aspiration)
vʑæ (N) tongue
vʑæ-lŋa (N-DIM) uvula; syn. *vʑæ-zi* 'ibid.'
vʑæ-zi (N-DIM) uvula; syn. *vʑæ-lŋa* 'ibid.'
vʑe (N) neck (only in the front)
wbələlə (N) cheek
wə- (N, BM) intestines
wə-ɲa (N-V) small intestine, lit. 'black intestine'
wə-p^{h}ru (N-V) large intestine, lit. 'white intestine'
wə-wa (N-N?) intestines (general term)
wmərja (N) body hair (e.g. on the arms)
wp^{h}ə (N) behind, rump, derrière (used also of animals)
wrə-mæ (N-HSUF) stomach (organ)
wræ-lŋa (N-DIM?) lower leg (between the knee and foot)
wsi (N) bladder
zjar (N) heart
ʐa ~ ʐæ- (N) arm, hand
ʐæ-brəu (N-N) palm
ʐæ-brəu-ɲo (N-N-POST) back of the palm, lit. 'other side of the palm'
ʐæ-kuəla (N-?) left hand
ʐæ-lt^{h}ə (N-V) right hand; lit. 'straight hand'
ʐæ-ma (N-HSUF) thumb
zgrɔmdoŋ (N) backbone, spine; syn. *zgrɔrə* 'ibid.', yet likely originally different referents
zgrɔrə (N) backbone, spine; syn. *zgrɔmdoŋ*, yet likely originally different referent

B2. Bodily functions and dirt

ʑjə (N) faeces (rarely used in Eastern Geshiza, common in Western Geshiza)
æt^{h}jəu (N) sneeze
bəqra (N) burp
ʤʐəma (N) body dirt; TL *dri ma* 'ibid.'
lbi (N) urine
mdʑə (N) saliva; syn. *mdʑə-rji* 'ibid.'
mdʑə-rji (N-?) saliva; syn. *mdʑə* 'ibid.'
məu-blæ (N-N?) tear; cf. *məu* 'eye'
məu-spæ (N-N) eye mucus, lit. 'eye-pus'
ɲoŋ-p^{h}ə (N-N?) earwax; cf. *ɲoŋ* 'ear'
rtɕɔpa (N) dung, excrement, faeces; TL *skyag pa* 'ibid'
snæ-s^{h}e (N-N) nosebleed, lit. 'nose-blood'
snæ-rq^{h}e (N-N?) nasal mucus; cf. *sni ~ snæ-* 'nose'
snəu (N) nasal mucus in liquid form; historically likely related to *sni ~ snæ-* 'nose'
spæ (N) pus (of infected wounds); (V1b) to suppurate, discharge pus
sq^{h}ar (N) phlegm (e.g. when coughing or sick)

wçə (N) flatulence
wçi (N) sweat; (V1b) to sweat
zɣe (N) yawning

B3. Life, death, sickness, and handicap

bədær (N) rash (e.g. on arm etc.)
lædu (N) altitude sickness, AMS; TL *la dug* 'ibid.'
lærgən (N) measles; syn. *mbru* (N) 'ibid.'
ləvla (N) stingy or prickly feeling in the eyes (can be caused e.g. by excessive exposure to the wind)
lɣa-mæ (N-HSUF) crazy person; historical nominalisation of *lɣa* (V2b) to be crazy
lɣuə (N) mute person, person with developmental disabilities
lu-va (V-HSUF) blind person; historical nominalisation of *lu* (V1b) to be blind
mbru (N) measles; syn. *lærgən* 'ibid.'
məu-zgre (N-N) stars one sees e.g. when rising up too fast; lit. 'eye-stars'
mdʑæ- (N?, BM) deaf; cf. *mdʑi* 'to be deaf'
mdʑæ-kəu (N?-?) deaf person; syn.*mdʑæ-lda* 'ibid'
mdʑæ-lda (N?-?) deaf person; syn. *mdʑæ-kəu* 'ibid.'
ndzə-ŋo (N?-V) leprosy; cf. *ŋo* 'to be sick'
rloŋ (N) intestinal track disease
rtsəbrə (N) cold (sickness)
rtsəbrə-smæn (N-N) cold medicine
ruə (N) dead body, corpse
smæn (N) 1. medicine 2. fertiliser; TL *sman* 'medicine'
bæ-smæn (N-N) Tibetan medicine; TL *bod sman* 'ibid.'
rdʑæ-smæn (N-N) Chinese medicine; TL *rgya sman* 'ibid.'
smæn-k^{h}aŋ (N-N) hospital; *TL sman khang* 'hospital'
smæn-vo (N-N) alcohol for medicinal purposes, lit. 'medicine-alcohol'
snə-skæ (N-N) nasal-sounding quality in voice when sick (e.g. because of having caught cold), lit. 'nose-sound, nose-language'
sq^{h}a (N) life
s^{h}æ-me (V-NMLZ) dead person; near syn. *s^{h}æ-ji* 'late person, person who has passed away'
s^{h}æ-ji (V-?) late person, person who has passed away; near syn. *s^{h}æ-me* 'dead person'
ts^{h}e (N) life, life span; TL *tshe* 'ibid.'
wmæ (N) wound
wmæ-st^{h}i (N-N) scar

B4. Kinship and relationships

æ-kə (HPREF-N) 1. uncle (father's side) 2. polite way for referring to lamas and monks
æ-mɲi (HPREF-N) grandfather
wo-mɲi (?-N) great-grandfather; *wo* possibly related to the Stau *wo* 'again'
æ-pə (HPREF-N) grandmother
wo-pə (?-N) great-grandmother; *wo* possibly related to the Stau *wo* 'again'
æ-tæ (HPREF-N) older sibling (not used in all Eastern Geshiza speaking villages, including Balang where the narrower terms *koko* 'older brother' and *tɕetɕe* 'older sister' are preferred)

æ-ʐo (HPREF-N) 1. maternal uncle 2. respectful title for middle-aged men regarless of kinship

bərdʐə (N) offspring, progeny, one's direct descendants

bət^{h}oŋ (N) son-in-law: a male that has moved into the wife's household in a matrilocal marriage

bəʐə (N) boy, son, young man; syn. *zi* 'male child, son'

ʂ^{h}æne (N) 1. younger brother; 2. brother in the figurative sense used for personal bonding in non-sanguineal relationships; near syn. *ri* 'younger brother'

jəs^{h}æma (N) widow (offensive); TL *yugs sa ma* 'ibid.'

jo-væ (N-HSUF) husband or wife, (married) couple, lit. 'house-person'; distinct from *we-væ*

jo-væ-lŋa (N-HSUF-DIM) the younger couple in multigenerational households typical to the Geshiza

koko (N) older brother; CL *gēge* 哥哥 'ibid.'

lala (N) 1. maternal aunt 2. respectful term for middle-aged women regardless of kinship

mæ ~ ma- (N) 1. mother 2. female animal

æ-mæ (HPREF-N) mother

ma-zə (N-N) mother and a child

mimi (N) 1. younger sister 2. female younger than oneself, e.g. daughter-in-law; CL *mèimei* 妹妹 'younger sister'

nænæ (N) paternal aunt

neva (N) relative (only refers to relatives living in a different household unit)

ri (N) younger brother (no metaphorical use); near syn. *ʂ^{h}æne* 'younger brother'

rjəu (N) wife, stable female partner

ɲo-rjəu (POST-N) new wife after divorce, lit. 'after-wife'

ŋui-rjəu (POST-N) ex-wife, lit. 'before-wife'

rjəu-lŋa (N-DIM) daughter-in-law, lit. 'little wife'

rjəu-ma-ʂ^{h}æɳʤi (N-NEG.EXV-N) bachelor (slang, potentially offensive), lit. 'devil with no wife'; near syn. *rjəu-mi-ntʂ^{h}o-me* 'bachelor (neutral)'

rjəu-mi-ntʂ^{h}o-me (N-NEG-V-NMLZ) bachelor (neutral); near syn. *rjəu-ma-ʂ^{h}æɳʤi* 'bachelor (slang, offensive)'

rmæ- (N, BM) sibling

rmæ-sq^{h}e (N-N) sisters

rmæ-sno (N-N) brothers and sisters

rmæ-sti (N-N) brothers; often used figuratively among male friends to emphasise the kinship-kind depth of the relationship

sənsən (N) grandchild (irrespective of sex); CL *sūn* 孙 'grandchild', with reduplication in the Danba dialect

skəja (N) twins (archaic)

sme (N) woman, daughter; also used for granddaughters in a vocative-like manner: *ŋɛ sme* (1.GEN daughter) 'My (grand)daughter!'

smæ-ŋa (N-N? or N-DIM) girl, young woman, daughter

sno (N) sibling of the opposite sex; sister (male speakers), brother (female speakers)

sq^{h}e (N) sister (used by female speakers)

titi (N) younger brother; CL *dìdi* 弟弟 'ibid.'

tʂetʂe (N) older sister; CL *jiějie* 姐姐 'ibid.'

væ ~ va- (N) 1. father 2. male animal
æ-væ (HPREF-N) father (not used in all Eastern Geshiza speaking villages, including Balang)
væ-mæ (N-N) father and mother
va-zə (N-N) father and a child
vdzæ-væ (N?-HSUF) old man
vdzi (N) man, person, husband
ɲo-vdzi (POST-N) new husband after divorce, lit. 'after-man'
ŋui-vdzi (POST-N) ex-husband, lit. 'before-man'
vdʑæ (N) friend, companion; syn. *vdʑæ-ɕʰi* 'ibid.'
vdʑæ-ɕʰi (N-N?) friend; syn. *vdʑæ* 'ibid.'
vəda (N) 1. old woman 2. wife
wdælə (N) illegitimate child with a partner other than one's wife or husband, child out of wedlock (offensive)
we-væ (N-HSUF) family member; distinct from *jo-væ*
zi (N) male child, son; syn. *bəʑə* (N) boy, young man; also used for grandsons in a vocative-like manner: *ŋɛ zi* (1.GEN son) 'My (grand)son!'

B5. Jobs and occupations

ą̊mɔmə (N) soldier; TL *dmag mi* 'ibid.'
ą̊mɔpən (N) general, warlord, commander; TL *dmag dpon* 'ibid.'
ą̊pən (N) chief, chieftain, foreman, leader, official, president, person with a high official rank; TL *dpon* 'chief, chieftain, foreman, leader'; near syn. *ŋgo* 'boss, leader, 'head'
ą̊sælpən (N) steward-in-chief, minor attendant; TL *gsim dpon* 'ibid.'
ɕʰanvzə (N) carpenter; *shing bzo* 'ibid.'
ɕʰævzə (N) artisan, painter of the Tibetan divinities; *lha bzo* 'ibid.'
dzi-və-me (N-V-NMLZ) cook, lit. 'food-maker'
dʑədə-zji-me (N-V-NMLZ) teacher, lit. 'book-teacher'; syn. *ləusə* 'ibid.'
dʑɔpa (N) robber, bandit; *jag pa* 'ibid.'
goŋma (N) emperor; *gong ma* 'ibid.'
rdʑænɔ-goŋma (N-N) emperor of China; TL *rgya nag gong ma* 'ibid.'
græpa (N) novice monk (boy); TL *grwa pa* 'novice'
kʰæmbo (N) abbot of a monastery, a person who has completed advanced studies in Buddhism; TL *mkhan po* 'ibid.'
leska-pa (N-HSUF) manual labourer; first part a TL *las ka* 'work'
ləupər (N) boss, shopkeeper, business proprietor; CL *lǎobǎr* 老板儿 'ibid.'
ləusə (N) teacher (at school); syn. *dʑədə-zji-me* 'ibid.'; CL *lǎoshī* 老师 'ibid.'
mdʑə-tə-me (N-V-NMLZ) dancer, lit. 'dance-dancer'
mtsʰə~mtsʰæ-me (V~RED-NMLZ) painter; cf. *mtsʰə* (V3b) to paint
ɲjɔ (N) servant, 'serf' (in the past); *g.yog* 'servant'
ɲjɔ-sme (N-N) female servant
ɲjɔ-vdzi (N-N) male servant
ŋgo (N) boss, leader, 'head' (not used in the concrete sense for the body part); TL *mgo* 'head'; near syn. *ą̊pən* 'chief, chieftain, foreman, leader, official, president, person with a high official rank'
ræ-me (V-NMLZ) writer; cf. *v-ræ* (V3b) to write

rdævzə (N) stone mason; TL *rdo bzo* 'ibid.'

rdzoŋpən (N) governor (hist.); TL *rdzong dpon* 'ibid.'

rdʑælpə (N) 1. king, chieftain (more powerful than *apən*), ruler 2. rich person; TL *rgyal po* 'king, chieftain, ruler'

rkəmæ (N) thief; TL *rku ma* 'ibid.'

rŋa-pa (V-NMLZ) hunter; cf. *rŋa* (V3b) to hunt, alternatively TL *rgon pa* 'ibid.'

ræ-læ-me (N-V-NMLZ) painter

rtsipa (N) diviner, soothsayer, astrologer'; TL *rtsis pa* 'ibid.'

sresmu (N) wife of a chieftain or king (*rdʑælpə*); TL *sras mo* 'princess'

tʰə~tʰæ-me (RED~V-NMLZ) beggar; cf. *v-tʰæ* (V2b) to beg

tsʰæntɕa-pa (N-SUFF) official (of the Chinese State); first part CL *cānjiā* 参加 'to participate'

tsʰoŋba (N) trader, merchant; TL *tshong pa* 'ibid.'; syn. *tsʰoŋpən* 'ibid.'

tsʰoŋpən (N) trader, merchant; TL *tshong dpon* 'ibid,'; syn. *tsʰoŋba* 'ibid.'

tsʰu-me (V-NMLZ) blacksmith; syn. *vsʰə* 'ibid.'; cf. *v-tsʰu* (add to final version) to hammer, forge, pound, mash, pulverise'

tɕæ-vzə-me (N-V-NMLZ) road construction worker, roadmender, lit. 'road-repairer'

ʈʂʰaŋko-zla-me (N-V-NMLZ) singer; lit. 'song-singer'; first part CL *chànggē* 唱歌 'to sing a song'

ʈʂʰetsə-læ-me (N-V-NMLZ) car driver; first part CL *chēzi* 车子 'car'

va-ra-me (N-V-NMLZ) pig castrator (job also includes the removal of sows' uterus as a means of birth control), lit. 'pig-hitter'

vdzi-ndo-qʰua (N-V-NMLZ) trickster, lit. 'person-deceiver'

vdɔpə (N) master, proprietor (e.g. of a house); TL *bdag po* 'ibid.'

vsʰə (N) blacksmith; syn. *tsʰu-me* 'ibid.'

ʂsær-vsʰə (N-N) gold blacksmith

rŋən-vsʰə (N-N) silver blacksmith

tɕo-vsʰə (N-N) iron blacksmith

zoŋ-vsʰə (N-N) bronze blacksmith

vzə-me (N-NMLZ) repairman; cf. *vzə* (V3b) to fix, repair, mend, make

xɛ-rəu-me (N-V-NMLZ) shoemaker, lit. 'shoe-sewer'; near syn. *xe-ndzær-me* 'shoemaker'; first part CL *xié* 鞋 '(modern) shoe'

xɛ-ndzær-me (N-V-NMLZ) shoemaker, lit. 'shoe-nailer'; near syn. *xe-rəu-me* 'shoemaker'; first part CL *xié* 鞋 '(modern) shoe'

zjə~zjæ-me (V~RED-NMLZ) shopkeeper; cf. *zjə* (V3b) to sell

ʑælpʰji (N) messenger (e.g. of a chieftain or of an army, mostly in the past

B6. Roles, occupations, and characteristics

bæ (N) Tibetan (generally used endonymically by the Geshiza, also covers all ethnically Tibetan people); near syn. *bæpa* 'ibid.'; TL *bod* 'Tibet'

bæpa (N) Tibetan (general term for all ethnically Tibetan people, also covers the Geshiza, even though rarely used endonymically); near syn. *bæ* 'Tibetan'; TL *bod pa* 'ibid.'

bələn-qʰua (N-SUFF) badly indebted person; first part TL *bu lon* 'debt'

bətʰoŋ-kʰo-me (N-V-NMLZ) one who gives away a son as a groom in a matrilocal marriage (i.e., sends one's son into a

different household as 'son-in-law'); lit. 'son-in-law-giver'

dʑədə-mə-mŋə-me (N-NEG-V-NMLZ) illiterate; lit. 'writing-no.canner'

jærəubə (N) generous person; TL *ya rabs po* 'ibid.'

jæ-vɕæ-me (CONT-V-NMLZ) person who talks drivel, nonsense, too much; cf. *vɕæ* (V3b) to speak

jæ-vɕe~jæ-vɕe-me ([CONT-V]~RED-NMLZ) person who wants more and more and is never satisfied; cf. *vɕe* (V1b) to want

kuærti (N) very poor, destitute

læ-mæ (N-HSUF) liar

læ-mæ-bəʑə (N-HSUF-N) young man who is a known liar

læ-mæ-rgæn (N-HSUF-N) liar (offensive); syn. *læ-mæ-q^{h}æto* 'liar'; *læ-mæ-q^{h}ua* 'liar'

læ-mæ-q^{h}æto (N-HSUF-N) liar; syn. *læ-mæ-rgæn* 'liar (offensive)', *læ-mæ-q^{h}ua* 'liar'

læ-mæ-q^{h}ua (N-HSUF-SUFF) liar; syn. *læ-mæ-rgæn* 'liar (offensive)', *læ-mæ-q^{h}æto* 'liar'

lmæmæ-q^{h}ua (V-NMLZ) cry baby, a baby that cries often; cf. *lmæmæ* 'to cry'

lmə-q^{h}ua (V-NMLZ) forgetful person; cf. *lmə* (V4) to forget

lŋa-dʑi-me (N-V-NMLZ) someone who has children, lit. 'child-exister'

lotɕ^{h}oŋ ~ ləutɕ^{h}oŋ (N) young person below approximately 45 years old regardless of the sex; *ləutɕ^{h}oŋ* is considered a less standard pronunciation; TL *lo chung* 'young'

mæræpa (N) stingy TL *ma raps* 'low class, vulgar' + *pa* 'agentive suffix'

mdʑurten-me ~ ndʑurten-me (N-SUFF) commoners, lay people, ordinary mortal people; Tib *'jig rten* 'worldly, mortal, ordinary' with the Geshiza suffix *-me*; see *Appendix II: Culture-Specific Lexixon*

mepo (N) poor person; syn. *mi-ntɕ^{h}o-me* 'ibid.', *mi-ntɕ^{h}o-pa* 'ibid.'; TL *med po* 'ibid.'

mi-dʐɔ-me (NEG-V-NMLZ) weakling, incapable; cf. *dʐɔ* (V2a) to be competent, capable

mi-ntɕ^{h}o-me (NEG-V-NMLZ) poor person; syn. *mepo* 'ibid.', *mi-ntɕ^{h}o-pa* 'ibid.'; cf. *ntɕ^{h}o* (V3b) to have

mi-ntɕ^{h}o-pa (NEG-V-NMLZ) poor person; syn. *mepo* 'ibid.', *mi-ntɕ^{h}o-me* 'ibid.'; cf. *ntɕ^{h}o* (V3b) to have

mot^{h}o-læ-me (N-V-NMLZ) motorbike driver; first part CL *mótuō* 摩托 'motorbike'

ɲjɔ-rgæn (N-N) lazy person or animal; cf. *ɲjɔ* 'servant, serf'

ntɕ^{h}æra-q^{h}ua (V-NMLZ) person who does not work and has fun constantly; cf. *ntɕ^{h}æra* (V2b) to have a fun time, amuse oneself

ŋɖʐənbə (N) guest, visitor (rare); TL *mgron po* 'ibid.'; syn. *stærvə* 'ibid.'

ŋo-me (V-NMLZ) sick person; cf. *ŋo* (V2b) to be sick

p^{h}ə-mæ (N-HSUF) poor person

p^{h}jəpo (N) rich person; TL *phyug po* 'rich man'

p^{h}jə-væ (N-SUFF) outsider, foreigner; cf. *p^{h}jə* 'outside'

rdʑæ (N) Chinese; TL *rgya* 'China'

rdʑə-ŋgə-me (N-V-NMLZ) corrupt official; lit. 'property-eater, wealth-eater'

rə-me (V-NMLZ) buyer; cf. *v-rə* (V3b) to buy'

rə-væ (N?-HSUF) villager, person from the same village

rgə-q^{h}ua (V-NMLZ) sleepyhead, person who sleeps a lot; cf. *rgə* (V2b) to sleep

rgergən (N) old person (regardless of sex); TL *dge rgan* 'teacher, master'

rjəu-k^{h}o-me (N-V-NMLZ) one who gives away a bride in patrilocal marriage (i.e., sends one's daughter into a different household), lit. 'wife-giver'

(rjəu)-rjæ-ɕə-me ([N]-V-V-NMLZ) person who goes to ask for a woman's hand on behalf of the suitor, lit. '(wife)-ask-goer'

rji-rdʑu-me (N-V-NMLZ) jockey, horse rider; syn. *rji-tɕi-me* 'ibid.'

rji-tɕi-me (N-V-NMLZ) jockey, horse rider; syn. *rji-rdʑu-me* 'ibid.'

stærvə (N) guest, visitor; syn. *ŋʤʐənbə* 'ibid.'

stɕær-q^{h}ua (V-NMLZ) coward; cf. *stɕær* 'to be afraid, frightened'

stɕəpa (N) people in the village, villagers; TL *spyi pa* 'public, ordinary people'

tɕ^{h}oŋma (N) man responsible for alcohol and citarette service during an event; TL *chang ma* '*chang* seller, barmaid'

va-nt^{h}u-mi-ŋgə-me (N-N-NEG-V-NMLZ) Muslim, usually refers to a member of the Hui ethnicity, lit. 'pork-non-eater'

væjæ-q^{h}ua (N-SUFF) person who behaves badly and irresponsibly when drunk

vɕu-rgæn (V-N) spendthrift, extravagant person, person wasting money and resources; cf. *vɕu* 'to spend excessively, waste (e.g. money), behave extravagantly'

vdə-vtəl-me (N-V-NMLZ) demon vanquisher, demon subduer (in folklore)

vdɔpə (N) host, master (rare); TL *vdag po* 'master, owner, proprietor'

vdzi-s^{h}æ-me (N-V-NMLZ) killer, murderer, lit. 'person-killer'; syn. *vdzi-s^{h}æ-q^{h}ua* 'ibid.'

vdzi-s^{h}æ-q^{h}ua (N-V-NMLZ) killer, murderer lit. 'person-killer'; syn. *vdzi-s^{h}æ-me* 'ibid.'

vo-t^{h}i-q^{h}ua (N-V-NMLZ) drunkard, alcoholic, person who drinks alcohol excessively, lit. 'alcohol-drinker'

vʑæ-nt^{h}o (N-?) person with a pronunciation defect; cf. *vʑæ* 'tongue'

vtɕəlɔ-q^{h}ua (N?-SUFF or possibly V-NMLZ) disobedient child

wɕa-q^{h}ua (N-SUFF) frequently flatulating person; cf. *wɕa* 'flatulence'

zde (N) commoners, community members, laypeople (living in the same valley); TL *sde* 'practitioners, group, tribe, section, community, army'

C. Cuisine and clothing

C1. Food and intoxicants

(ą)mærnɔ (N) cooking oil; TL *mar nag* 'oil, mustard oil, sesame oil', yet the occasionally surfacing preinitial remains unexplained

(ą)mele (N) noodles

bjæno (N) meat; syn. nana 'ibid.'

ajɔ-bjæno (N-N) yak meat

ji-bjæno (N-N) lamb

rgo-bjæno (N-N) beef

ts^{h}æ-bjæno (N-N) mutton

va-bjæno (N-N) pork

ɕæ-mtsæ (N-N) tsampa; syn. *mtsæ-wdʑo* 'ibid'

ɕifæn (N) porridge; syn. *tsʰəva* 'ibid.'; CL *xīfàn* 稀饭 'ibid.'

ɕʰæskæn (N) dried meat; TL *sha skam (po)* 'ibid.'

dəu (N) poison; TL *dug* 'ibid'

snæ-dəu (N-N) snuff, lit. nose-poison

zæ-dəu (N-N) poison that is put into food or drink; *zæ-* possible TL *za* 'food'

də-va (N-HSUF) tobacco; possibly TL *tu ba* 'smoke' , which would render it non-compositional (N)

dzi (N) food; no zero conversion into **dzi* 'to eat' in Geshiza

gædə-dzi (N-N) breakfast

gəɕʰo-dzi (N-N) dinner

mdzo-dzi (N-N) lunch

rji-dzi (N-N) horse fodder, lit. 'horse-food'

rgo-dzi (N-N) cow fodder, lit. 'cow-food'

va-dzi (N-N) pig fodder, lit 'pig-food'

kʰæspʰə (N) *baozi* (包子), steamed stuffed bun; syn. *pəutsə* 'ibid'

kʰe (N) *kʰe*, Geshiza bread

jime-kʰe (N-N) corn bread

ko-kʰe (N-N) *kʰe* traditionally made in the *zutɕu* kettle, nowadays in electric cookers

ɑ̃mærnɔ-kʰe (N-N) oil *kʰe*

japʰiæn (N) opium; CL *yāpiàn* 鸦片 'ibid'.

lmæ (N) dough

mær (N) butter; possibly TL *mar* 'ibid.'

mtsæ (N) roasted barley

mtsæ-wdʑo (N-N) tsampa, lit. 'roasted barley flour'; syn. *ɕæ-mtsæ* 'ibid.'

nana (N) meat; syn *bjæno* 'ibid.'

ntʰu (N) meat with a lot of fat

va-ntʰu (N-N) pork (with fat)

rdʑæ-ntʰu (N-N) Chinese-style pork

roŋ-ntʰu (N-N) Geshiza-style pork

wo-ntʰu (N-N) bear meat (with fat)

ɲəu-me (V-NMLZ) spicy things; *ɲəu* (V1a) to be spicy

pə (N) sugar, candy

mbrɛ-pə (N-N) rice candy, rice cracker

rbu-pə (N~N) honey

pəutsə (N) *baozi*, steamed stuffed bun; CL *bāozi* 包子 'ibid'; syn. *kʰæspʰə* 'ibid'

pʰælɔ (N) *mantou* (Ch. 馒头), Chinese steamed bun

pʰɔɕʰa (N) pork (folkl.); *phag sha* 'ibid.'

ra-stu (N-N?) egg; cf. *ra-* 'chicken'

ræ-ɣuə (N-N) pickled turnip (upper part of the plant) or pickled Chinese cabbage as a dish; also used for the upper part of turnip as a plant

rtsʰi (N) fat

rgo-rtsʰi (N-N) cow fat

va-rtsʰi (N-N) pig fat, lard

wo-rtsʰi (N-N) bear fat

snən (N) oil; TL *snum* 'ibid.'

spro (N) corn flour often used as animal fodder when mixed with water

va-spro (N-N) pig fodder made from corn flour

rgo-spro (N-N) cow fodder made from corn flour

ste-ma (N-HSUF) left-overs (usually of food)

suænmiəu (N) *suànmiáo* 蒜苗 'ibid.'

taŋkəu (N) cake; CL *dàngāo* 蛋糕 'ibid.'

təfu (N) tofu; CL *dòufu* 豆腐 'ibid.'

tʰan (N) soup; CL *tāng* 汤 'ibid.'

læbə-tʰan (N-N) radish soup

rastu-t^{h}an (N-N) egg soup

ts^{h}ɛ (N) dish, vegetable; CL *cài* 菜 'ibid.'

ts^{h}ɛ~ts^{h}a (N~RED) all kinds of dishes, vegetables

ts^{h}ə (N) salt

ts^{h}əva (N) porridge; syn. *ɕifæn* 'ibid.'

mbrɛ-ts^{h}əva (N-N) rice porridge

tɕəqlɔ (N) tsampa with tea and optionally butter

tɕ^{h}əri (N) bone (also as a part of cuisine)

ʈʂ^{h}uæntʂ^{h}uænɕan (N) Sichuanese style meat skewers; CL *chuànchuànxiāng* 串串香 'ibid.'

va ~ væ- ~ vɔ- (N) pig, pork

væ-kəu (N-N) pig skin (Geshiza dish)

væ-vgær (N-N) 'Danba fragrant pork' (香猪腿), a famous Geshiza delicacy; lit. pork hind legs

vɔ-s^{h}u (N-N) stuffed pig rectum sausage, lit. 'pig-rectum'

wdʑo (N) flour

xæmpəu (N) hamburger; CL *hànbǎo* 汉堡 'ibid.'

xoko (N) *huoguo*, Chinese hotpot; CL *huǒguō* 火锅 'ibid.'

zbro (N) boiled dried green beans (prepared especially at *zbro-t^{h}o ~ zbro-mtɕ^{h}æ* 'Green Beans Boiling Festival' (see §2.4.1); cf. *sətɕitu* (N) green beans (before boiling)

C2. Drink

ɕ^{h}ə (N) milk

rgo-ɕ^{h}ə (N-N) cow milk

ts^{h}æ-ɕ^{h}ə (N-N) goat milk

dʑa (N) tea; TL *ja* 'ibid.'

ɕ^{h}ə-dʑa (N-N) milk tea

mær-dʑa (N-N) butter tea

q^{h}ælo-dʑa (N-N) walnut tea

t^{h}i-ʑæ (V-NMLZ) drink; cf. *v-t^{h}i* 'to drink'

tɕ^{h}oŋ (N) chang, Tibetan beer; TL *chang* 'ibid.'

mær-tɕ^{h}oŋ (N-N) Tibetan butter alcohol

vo (N) alcohol, alcoholic drink

rdʑæ-vo (N-N) Chinese baijiu alcohol (白酒), lit. 'Chinese alcohol'

roŋ-vo (N) self-made alcohol, lit. local alcohol, farmer alcohol

wrə (N) water, liquids for drinking

pə-wrə (N-N) carbonated drinks, such as Coca Cola; lit. 'sugar water'

t^{h}i-wrə (V-N) drinking water; cf. *v-t^{h}i* (V3b) to drink'

wrə-lə (N-V) boiled water

wrə-k^{h}o (N-V) cold water

C3. Clothing and accessories

ɑ̈næmt^{h}oŋ (N) women's' decorated outer garment used when dancing traditional dances

ɑ̈zæn (N) robe used by Tibetan monks; TL *gzan* 'monastic shawl'

bjərə (N) coral (used in accessories); TL *byu ru* 'ibid.'

ɕ^{h}ændzə (N) clothes; syn. *ts^{h}ægzə* 'ibid.'

dupə (N) rags, very worn clothes

dʑərtɕe (N) cloth for carrying babies on the back

dʑy(w)æ-tɕe (N-N) fox-fur hat, lit. 'fox-hat'

ɣuaɣua (N) button hole

k^{h}æsær (N) cloth

kʰætʰa (N) button (in clothes)
kʰrakʰra-ma (N-HSUF) decorative strips at the ends of a woollen blanket
kuakua (N) type of traditional coat
ldʑe (N) end parts of the *dʑərtɕe* baby-carrying cloth
lendzə (N) collar (in clothing); CL *lǐngzi* 领子 'ibid.'
loŋtɕə (N) belt (archaic); syn. *pʰite* '(leather) belt'
lpʰæle (N) patch (on clothes); (V3b) to put a patch (on clothes)
luɕʰə (N) trousers
mæge (N) skirt
məu-ɕʰæl (N-N) eye-glasses, lit. eye-glasses
məuji (N) sweater; CL *máoyī* 毛衣 'ibid.'
ntʰɔ-ma (V-HSUF) embroidered strings in the baby carrying belt; historical nominalisation of *ntʰɔ* (V3b) to weave, embroider
pare (N) 1. rectangular-shaped traditional ladies' headdress 2. towel
ntsʰəryi-pare (V-N) face towel, lit. 'wash.face-towel'
ʑa-spji-pare ~ **ʑa-stɕi-pare** (N-V-N) hand towel, lit. 'hand-sweeping-towel'
pʰitɛ (N) (leather) belt; CL *pídài* 皮带; near syn. *loŋtɕə* 'belt'
ræmboŋ (N) ladies skirt-apron-like garment that is worn at the back-side of the body; cf. *xeɕʰoŋ*
rqua-skær (N-V) muffler, scarf, lit. 'throat-tie.around'; syn. *skeʤi* 'ibid.'
skeʤi (N) muffler, scarf; syn. *rqua-skær* 'ibid.'; TL *ske dkris* 'ibid.'
sræn-ɕʰæn-ma (N-?-HSUF) traditional piece of clothing made of otter skin; cf. *sræn* 'otter'
tsʰæzgə (N) clothes; syn. *ɕʰændzə* 'ibid.'
bæ-tsʰæzgə (N-N) Tibetan clothes
noŋ-tsʰæzgə (POST-N) undergarment, lit. 'inside-clothes'
pʰjə-tsʰæzgə (POST-N) outerwear, outer garments, lit. 'outside-clothes'
rdʑæ-tsʰæzgə (N-N) Chinese clothes; often used in reference to Western clothes
tsʰæzgə~zgæ (N~RED) all kinds of clothes
tɕe (N) hat
tɕʰəba (N), chuba, traditional Tibetan garment; TL *phyu pa* 'ibid.'
vuru (N) place for storing things inside chuba at around the waist-stomach area
watsə (N) socks; CL *wàzi* 袜子 'ibid.
wzi (N) Tibetan-style traditional shoes
zælvo (N) sleeve
ʑa-mdʑo (N-N) gloves, lit. 'hand-nest'
ʑæ-tʰa (N-V) ring, lit. 'hand-attach'
ʑæ-kʰue (N-?) bracelet; cf. *ʑa ~ zæ-* 'hand'
xɛ (N) (modern) shoes; CL *xié* 鞋 'ibid.'
xeɕʰoŋ (N) ladies skirt-apron-like garment that is worn at the back-side of the body; cf. *ræmboŋ*

D. Tools and objects

D1. Agricultural tools

bətʰa (N) stick, stick-like long object; syn. *bi* 'ibid.'
bi (N) stick, stick-like long object; syn. *bətʰa* 'ibid.'

bri (N) leash, chain
  tɕo-bri (N-N) iron chain
jɔpa (N) spreader
lgə (N) trough
  kʰə-lgə (N-N) dog bowl, dog trough
  væ-lgə (N-N) pig trough
lostar (N) small axe
lvi (N) big axe
mtʰər (N) reins, bridle; TL *mthur* 'ibid.'
ŋkʰærlo (N) corn sheller, shelling machine, wheel; (V3b) to use the corn sheller; TL *'khor lo* 'wheel, machine'
po (N) measurement tool for grain approximately similar in size with the Chinese *dou* (斗); TL *'bo* 'ibid.'
pule (N) water wheel (of a mill), cog (of a machine)
rdæzga (N) wooden tool for carrying stones on one's back; TL (dialectal) *rdo sga* 'ibid.'
rətɔ (N) mill, millstone; syn. *wvi* 'millstone'; TL *rang 'thag* 'millstone'
  rgævæ-rətɔ (N-HSUF-N) stone millstone
rkæma (N) hoe; TL *rko ma* 'ibid.'
smæn (N) 1. fertiliser 2. medicine; TL *sman* 'medicine'
snæ-kuær (N-N) nose ring of a domestic animal; cf. *sni ~ snæ-* 'nose'
sqrə (N) boundary mark
  ʑə-sqrə (N-N) boundary mark on the field; cf. *ʑə* 'field'
stɕʰu (N) blade of the plough used in farming; due to its shape, extended to describe something very steep figuratively
tɕɔsʰær (N) whip; likely TL *lcag tshan* 'whip'
wdʑə (N) sickle
  ræ-wdʑə (N-N) turnip slicer; cf. *re ~ ræ-* 'turnip'
wvi (N) millstone; syn. *rətɔ* 'mill, millstone'
xuaɕʰo (N) chemical, fertiliser; CL *huàxué* 化学 'chemical'; near syn. *smæn* 'medicine, fertiliser'
zga (N) saddle; (V3b) to saddle; TL *sga* 'ibid.'

D2. Carpentry and house building

ɕʰæmto (N) billhook
dʑæmdoŋ (N) tea churn; TL *ja mdong* 'ibid'
kætsə (N) tools (of a carpenter)
ldzue (N) chisel
lostar (N) small axe
lvi (N) big axe
mbədu (N) blowpipe (for blowing into fire)
mbərlən (N) carpenter's plane (V) to plane; TL *'bur len* 'carpenter's plane'
mtsi-ʑo (V-N) sharpening stone, polishing stone, lit. 'to.sharpen-stone'
mtsʰɔ-je (V-NMLZ) sieve; syn. *spʰjar ~ stɕʰar* 'ibid.'; cf. *mtsʰɔ* (V3b) to sieve
ndzær (N) nail; (V3b) to nail
(ŋ)kæræ (N) saw; (V3b) to saw
skærma (N) carpenter's square
spʰjar ~ stɕʰar (N) sieve; syn. *mtsʰɔ-je* 'ibid.'
stɕi (N) bradawl
  stɕi-ŋkʰærlo (N-N) old Tibetan-style drilling machine; cf. *ŋkʰærlo* 'wheel'
tʰətɕin (N) hammer

D3. Hunting equipment and weapons

ąbæle (N) club; (V4) to hit with a club
ąʑi (N) bow (weapon); TL *gzhu* 'ibid.'
bər- (N, BM) weapon with a blade
  bər-ɕʰo (N-N?) sword
  bər-zi (N-DIM) knife
ɕə (N) 1. blade of a tool or a weapon 2. tooth
ɕʰæŋɔ (N) hook (e.g. for fishing)
lævtɕoŋ (N) gun
  bæ-lævtɕoŋ (N-N) old Tibetan musket-like gun
mbəzə (N) gunpowder; historically likely N-N or N-DIM, *mbə-* likely from *wmə* 'fire' and *zə* 'diminutive, son'
mda (N) arrow (for the bow); TL *mda'* 'ibid.'
po- (N, BM) gun
  po-ątʰə (N-N) stock, but of a gun, lit. 'gun-but'
  po-kʰa (N-N) muzzle of a gun, lit. 'gun-mouth'
rdivə ~ rdivu (N) bullet
sqomba (N) slingshot
sqɔ (N) trigger of a gun
stʰor (N) trap (for catching animals), especially a box or cage trap
tsʰotsʰo (N) fishing net

D4. Furniture and other household objects

bræmdze (N) Tibetan(-style) elaborately designed carpet
kʰæstɕa (N) peel, an iron instrument used to put food to the oven to be baked
kʰrə (N) bed; TL *khri* 'couch, bed'
  bæ-kʰrə (N-N) Tibetan-style bed
  rdʑæ-kʰrə (N-N) Chinese-style bed
kʰrə-ko (V-NMLZ) handrail (of stairs); cf. *v- kʰrə* (V4) to hold, grasp
lævdær ~ rævdær (N) grater; TL *lab rdar* 'ibid.'
ldzə (N) pillar
mbæl (N) thick mattress
mbəzli (N) ritual tripod; *mbə-* likely from *wmə* 'fire' (cf. Duo'erji 1997: 266 *wmə zli ko* 'seat of honour around the ritual tripod', converted into IPA by the author)
mdentɕɔ ~ ndentɕɔ (N) Tibetan-style table; TL *mdun cog* 'ibid.'
merama (N) kettle with coal that is placed under the table to heat up the room during winter; likely a TL from an unidentified lect (cf. WT *me* 'fire')
məutʰæn (N) modern mass-produced blanket used in the cold season on top of *pʰuge* quilt when sleeping; CL *máotǎn* 毛毯 'blanket'
mtɕʰærva (N) hand-made woollen blanket used in the cold season on top of the quilt when sleeping
pæntən (N) chair; CL *bǎndèng* 板凳 'wooden bench or stool'
pʰuge (N) quilt (for sleeping), bedclothes; CL *pūgai* 铺盖 'bedding, bedclothes'
ryuen (N) pillow
sqɔ (N) fire tongs
stæn (N) sitting pillow, non-decorated carpet, mattress pad on *mbæl*; TL *stan* 'mat, carpet, cushion'
stɕəqo ~ stɕæqo (N) fire hook, fire iron, L-shaped iron object to be used for the cooking fire
tʰəu (N) stove, cooking place; TL *thab* 'oven, hearth, stove'

tɕo-ɕəu (N-N) clothesline; usually of iron in Geshiza houses; lit. 'iron-wire'; syn. *tɕo-skə* 'ibid.'

tɕo-skə (N-N?) clothesline; usually of iron in Geshiza houses; syn. *tɕo-ɕəu* 'ibid.'

ʈʂotsə (N) table; CL *zhuōzi* 桌子 'ibid.'

wrə-jo (N-N) water tank, likely lit. 'water-home'

zgæjæl (N) curtains

D5. Home appliances and consumer electronics

ɕijitɕi (N) washing machine; syn. *ts^{h}ægzə-ryi-je* 'ibid.'; CL *xǐyījī* 洗衣机 'ibid.'

lujintɕi (N) tape recorder; CL *lùyīnjī* 录音机 'ibid.'

tiænʂə (N) television; CL *diànshì* 电视 'ibid.'

tiænxua (N) telephone, phone call; CL *diànhuà* 电话 'ibid.'

ts^{h}ægzə-ryi-je (N-V-NMLZ) washing machine (archaic), lit. 'clothes-washer'; syn. *ɕijitɕi* 'ibid.'

D6. Utensils for eating and drinking

ɕ^{h}ældæn (N) glass bottle; *shel dam* 'ibid.'

də-ra (N-?) pipe (for smoking tobacco); cf. *də-* 'tobacco'

kantsə (N) mug; CL 缸子 'ibid.'

pipi (N) cup, glass, container

dʐa-pipi (N-N) container for tea (e.g. an aluminium bottle),

ɕəvə-pipi (N-N) paper cup

vo-pipi (N-N) shot glass for alcohol

q^{h}uə (N) bowl

q^{h}uə-zi (N-DIM) bowl (more commonly used than *q^{h}uə* 'ibid')

stɕɔ (N) ladle; also often used in a religious function for sprinkling water in the *zəva* ceremony (see §2.7.1); TL *skyogs* 'ibid.'

tɕɔjə ~tɕɔji (N) spoon

ʈʂ^{h}afu (N) teapot; CL *cháhú* 茶壶 'ibid.'

wdzær chopsticks

zdær (N) plate

D7. Musical instruments

ʑɕan (N) cymbals

ʑɕan-t^{h}u (N-N?) cymbal stick

doŋ (N) Tibetan horn; TL *dung* 'ibid.'

ɖʐælvə (N) bell; *dril bu* 'ibid.'

rdʐi (N) drum

rdʐoŋloŋ (N) type of Tibetan clarinet and trumpet-like instrument played especially during the *ʑato* rituals; TL *rgya gling* 'ibid.'

sjəu (N) flute

wləu (N) conch shell horn

zbri-ʐæ (V-NMLZ) wind instrument; cf. *zbri* (V3b) to play (wind instruments)

D8. Containers

ko (N) pot; CL *guō* 锅 'ibid.'

koda (N) medium-sized leather back carried on the back

k^{h}a-zgəu (N-V) lid, lit. 'mouth-cover'

k^{h}æ-st^{h}ə (N-V) bottle cork, lit. 'mouth-squeeze'

kʰæmboŋ (N) horse fodder sack tied at the mouth of the animal
kʰokʰo (N) pack, package
kʰytæ (N) sack; CL *kǒudài* 口袋 'bag, sack'
qæla (N) basket carried on the back
qərtɔ (N) basket
qʰæto (N) bag (hist.)
qʰua (N) animal-skin sack (hist.)
pəupəu (N) bag; CL *bāobāo* 包包 'ibid.'
po (N) 'po' (Ch. *dǒu* 斗) measure container used for measuring grain; also evolved into a classifier; ; TL *'bo* 'ibid.'
rdi (N) (kettle used for cooking)
rgæn (N) box; TL *sgam* 'ibid.'
ɕɔvə-rgæn (N-N) cardboard box, lit. 'paper-box'
rŋəvə (N) large earthen jar
rqu (N) box for storing grains
sʰætɕə (N) great cauldron
tutu (N) container above the millstone into which the grain is put before grinding
(hist.)
tsaloŋ (N) bag
tsʰotɕi (N) (bamboo) container, dustpan; CL *cuōjī* 撮箕 'dustpan'
tɕʰapʰæn (N, not the expected ***ʈʂʰapʰæn*) tea tray; CL *chápán* 茶盘 'ibid.'
wbætu (N) clay jar
wdo ~ wdæ- (N) bucket, pail
wdæ-zi (N-DIM) milking bucket
wni (N) (leather) bag (larger than *qʰua*)
dʑədʑa-wni (N-N) leather bag
xazo (N) steamer basket
xoxo (N) pack, small box; CL *hé* 盒 'small box' with reduplication in the Danba dialect
zæŋa (N) pot, cauldron
zgrəmbə (N) coffin; TL (dialectal) *sgrom po* 'coffin?', cf. WT *sgrom* 'box, chest, trunk, coffer'
zutɕu (N) iron kettle for cooking

D9. Other objects

ą̈du (N) umbrella; TL *gdugs* 'ibid.'
bældzə (N) walking stick
ɕəu ~ ɕʰəu (N) thread, wire
ɕɔvə (N) paper, toilet paper; TL *shog bu* 'paper'
ɕʰældoŋ (N) binoculars, telescope; TL (dialectal? and unknown, cf. WT *shel* 'glass')
ɕʰæzgoŋ (N) mirror; TL (dialectal?) *shel sgong* 'mirror' corresponding to WT *shel sgo* 'mirror'
ɣəu (N) needle
ɣuə-ɤkʰə (N-?) wig, Geshiza ladies' hair extension; cf. *ɣuə* 'head'
jaŋxo (N) matches (archaic); syn. *xoʈʂʰe* 'ibid.'; CL *yánghuǒ* 洋火 'ibid.'
liaŋ (N) candle, lamp
mtsʰo (N) target (to be aimed at when shooting)
mtɕʰərqʰo (N) knot; (V3b) to tie a knot
ŋkʰu-ma (V-HSUF > N) key; historical nominalisation of *ŋkʰuə* (V4) to put in; (V3b) to lock
pær-sʰi (V-N) engraved wooden plank for producing ink prints of religious motives; lit. 'copying-wood, printing wood'; first part of the compound TL *par* 'to print, carve wood blocks'
pi (N) pen; CL *bǐ* 笔 'ibid.'
qʰiqʰa-ma (N-HSUF) trash, rubbish

rŋa-ma (N-V) face lotion, lit. 'face-spread'
rtsənt^{h}əu (N) scissors
səri (N) rope
skælo (N) strap
taxotɕi (N) lighter; syn. *wmə-zvær-je* 'ibid.'; CL *dǎhuǒjī* 打火机 'ibid.'
tonɕi (N) thing, item; near syn. *tɕ^{h}æræ* 'ibid.' CL *dōngxi* 东西 'ibid.'
tu (N) glue (archaic)
ʈʂəu (N) photo; CL *zhào* 照 'ibid.'
tɕ^{h}æræ (N) thing, item (also abstract use); near syn. *tonɕi* 'thing, item'
tɕ^{h}u (N) ball; TL *qiú* 球 'ibid.'
wmə-zvær-je (N-V-NMLZ) lighter (archaic), lit. 'fire-lighter'; syn. *taxotɕi* 'ibid.'
ws^{h}u-rko (NUM-N) tripod, lit. 'three-legs'
xoʈʂ^{h}e (N) matches; syn. *jaŋxo* 'ibid.'; CL *huǒchái* 火柴 'ibid.'
zja (N) comb; (V3b) to comb; syn. *ɣuə-zja* 'comb'
ɣuə-zja (N-N) comb; lit. 'head-comb'; syn. *zja* 'ibid.'
zrə (N) broom

E. Places and transportation

E1. Places of agriculture and animal husbandry

ą̂ʑə-ma (N-HSUF) field; syn. *ʑə* 'field'; near syn. *ʑə-mæ* '(big) field'
ji-ko (N-SUFF) sheep barn, sheepfold
-jo (N, BM) section of a multi-crop field dedicated to a certain agricultural plant
jime-jo (N-N) corn field
p^{h}ut^{h}əu-jo (N-N) grape field
re-jo (N-N) turnip field
ʑe-jo (N-N) wheat field
k^{h}əu (N) terrace (on a mountain slope that is farmed)
læʑə-ko (N-SUFF) place for storing cow fodder
ɲəvə (N) barn, place for animals; traditionally the lowest floor of a house
ræl (N) furrow (in a field)
rævəu (N) barn
rgo-ko (N-SUFF) cow barn
rjo ~ rwe (N) fence
rɔtɔ-ko (N-SUFF) grinding room, mill; near syn. *wdʑolo-ko* 'mill, place for grinding'
rtæ-ko (N-SUFF) stable; syn. *rtæ-k^{h}aŋ* 'ibid.'
rtæ-k^{h}aŋ (N-N) stable; syn. *rtæ-ko* 'ibid.'; TL *rta khang* 'ibid.'
rvi (N) sleeping space for large domestic animals, such as pigs, that is made primarily from leaves that are changed regularly
ts^{h}an (N) granary, place for storing grain (can be a separate building of its own or a part of a room); CL *cāng* 仓 'granary, storehouse'
tɕ^{h}ə-ɣæ (N-N) water gate, lit. 'water-gate'
va-ko (N-SUFF) pigsty
væ-mdʑo (N-N) pig's sleeping place, lit. 'pig-nest'
wdʑolo-ko (V-NMLZ) mill, lit. grinding-place'; near syn. *rɔtɔ-ko* 'grinding room, mill'; cf. *wdʑolo* (V3b) to grind
wrə-ɕuæ (N-N) water tank, water reservoir
zləu ~ zlæ- (N) pasture
ʑə (N) field; syn. *ą̂ʑə-ma* 'field'; near syn. *ʑə-mæ* '(big) field'
tɕ^{h}ə-ʑə (N-N) wet field, lit. 'water-field'

ʐə-mæ (N-HSUF) (big) field; near syn. *ʂ̺ə-ma* ‘field’, *ʐə* ‘field’

E2. Rooms and parts of a house

ʂ̺dukar (N) prayer flag pole

bær-tsəu (POST-N) middle floor, second floor in the Geshiza house, lit. ‘middle-floor’; first part TL *bar* ‘middle’

dʐa-sti-ko (N-V-NMLZ) place for storing tea bricks, lit. ‘tea-placing-place’

dʐoŋ (N) clay wall, dirt wall (of a house)

ɣæ (N) door, gate

ɣæ-lməu (N-N?) door frame on top of the door

ɣæ-qrə (N-N?) door pivot hinge

ɣæ-sqɔ (N-N) small wooden door bolt inside individual rooms; (V3b) to close the door with a small bolt from the inside

ɣæ-zi (N-DIM) small door, small gate (e.g. of a pigsty)

ɣæ-zli (N-N) door bolt

ɣæ-zrəu (N-N?) threshold of a door

ɣæ-zu (N-N?) door frame on the left and right side of the door

jo ~jæ- ~ wo (N) house, home (rare); syn. *we* ‘ibid.’

kətsi (N) downspout of a house; syn. *wrə-kətsi* ‘ibid.’

wrə-kətsi (N-N) downspout of a house, lit. ‘water-downspout’; syn. *kətsi* ‘ibid.’

kærku (N) window

kʰue (N) room

kʰue~kʰua (N~RED) all rooms

lævtse (N) white horn-like structures on the roof of Geshiza houses found in the corners, normally six in total; TL *la btsas* ‘heaps of stones for prayer flag poles, mountain-top cairn, horn-like structures of a Tibetan house on the rooftop’

mtʂʰær-ko (N-SUFF or V-NMLZ) altar room in a Geshiza house, lit. ‘offering-space’; first part a TL *mchod* ‘offering, to offer, worship’

ŋʈʐənkʰaŋ (N) room where guests are received, generally refers to; TL *mgron khang* ‘guest house, hotel, house for accommodating guests and strangers’

ræ-sʰi (N) wooden rail on the rooftop corridor leading to the bathroom; can be easily removed or used for hanging agricultural produce to dry

rbæmæ (N, possibly N-HSUF) rooftop, open space on the rooftop

və-rbæmæ (POST-N) open space on the second highest rooftop, lit. ‘under-rooftop’

tʂʰa-rbæmæ (POST-N) open space on the second highest rooftop’, lit. ‘above-rooftop’

rdʐæ-tʰəu-ko (N-N-SUFF) (modern) kitchen. lit. ‘place of the Chinese/foreign stove’; syn. *rdʐæ-tʰəu-wa*

rdʐæ-tʰəu-wa (N-N-SUFF) (modern) kitchen. lit. ‘place of the Chinese/foreign stove’; syn. *rdʐæ-tʰəu-ko*

slə (N) ladder, stairs

tʂʰævsaŋ (N) toilet; TL *chab gsang* ‘toilet’

tʂʰəsrən (N) protective ferocious-looking design at main entrances above the door on both sides; TL *chu sram* ‘otter’

wʂo (N) floor, space below

we (N) house, home; syn. *jo ~jæ-* ‘ibid.’

bæ-we (N-N) Tibetan house

rdʐæ-we (N-N) Chinese house

mæ-we (N-N) central building, part of the Geshiza house complex that is constructed first, lit. 'mother- house'; syn. *mætɕin-we* 'central building, part of the Geshiza house complex that is constructed first'

mætɕin-we (N-N) central building, part of the Geshiza house complex that is constructed first; lit. 'mother-house-house'; syn. *mæ-we* 'central building, part of the Geshiza house complex that is constructed first'; first part a TL *ma khyim* 'mother house'

rgæ-væ-we (N-HSUF-N) stone house, house built mainly of stones (e.g. in Geshiza Valley), lit. 'stone-house'

s^{h}i-we (N-N) wood house, house with many wooden parts (e.g. in Daofu County), lit. 'wood-house'

zdæra (N) wall (in a house); near syn. *zdi* 'wall ((stone) wall (either in a house or in other constructions)'

zdi (N) (stone) wall (either in a house or in other constructions); near syn. *zdæra* 'wall (in a house)'; (V3b) to pile up in layers

zər (N) corner; TL *zur* 'ibid.'

zər-q^{h}ɔ (N-N) corner of a room

zli (N) (door) bolt; (V3b) to bolt (doors, gates)

E3. Other places and infrastructure

ą̃jəl (N) constructed open space, village square, inner yard in a house; (archaic)

ɕ^{h}oɕ^{h}əu (N) school, lit. 'book-study-place'; syn. *dʑədə-zdʑo-ko* 'ibid.'; CL *xuéxiào* 学校 'school'

dzo (N) bridge

ą̃na-dzo (N-N) old, ancient bridge

ŋdʐæ-dzo (N-N) log bridge

s^{h}i-dzo (N-N) wooden bridge

ʂuini-dzo (N-N) concrete bridge

dʑədə-zdʑo-ko (N-V-NMLZ) school, lit. 'book-study-place'; syn. *ɕ^{h}oɕ^{h}əu* 'ibid.'

gər (N) tent; Mongolian loan *ɛəp* 'house, home, nomadic tent' via Tibetan *gur* 'tent'

groŋ (N) village; TL *grong* 'ibid.'

katsə ~ katsi (N) village gate

keʂan (N) town; CL *jiē shàng* 街上 'on the street, in town'

kuændzə (N) restaurant; CL *guǎnzi* 馆子; syn. *zæk^{h}aŋ* 'ibid.'

k^{h}ji~k^{h}ja-ko (V~RED.NMLZ-SUFF) place for drying clothes

mk^{h}ær (N) tower (e.g. traditional Gyalrong towers); likely a TL *'khar* 'tower, castle, citadel'

mk^{h}re (N) stairs, steps (e.g. built as a part of a mountain road)

rdæ-mk^{h}re (N-N) stone stairs; first part of the compound TL *rdo* 'stone, rock'; syn. *rgævæ-mk^{h}re* 'stone stairs'

rgævæ-mk^{h}re (N-N) stone stairs; syn. *rdæ-mk^{h}re* 'ibid.'

ndʑælk^{h}a-ko (N-SUF) lookout, viewing platform (for scenery)

p^{h}ombowa (N) graveyard; possibly originally *p^{h}ombo-wa*, yet *p^{h}ombo* not attested independently

quæræ (N) ditch, drain, gutter

ræmər (N) well

rdʑæsla ~ rdʑæsləu (N) chieftain's palace; likely a TL from *rgyal sa* 'capital, royal seat, royal plve' through metathesis; see

also §3.5.4 for V ~ *əu* alternation in Tibetan loanwords

rgə-ko (V-NMLZ) hotel, inn, lit. 'place for sleeping'

rji-rdʑu-ko (N V-NMLZ) place for horse races, lit. 'horse-runninng-place'

rtsənk^{h}aŋ (N) prison; TL *btson khang* 'ibid.'

skærva-ko (N-SUFF) place for pilgrimage; cf. *skærva* 'pilgrimage, circumambulation'

skərjo (N) village square; syn. *ʂəʈʂ^{h}an* 'ibid.'

s^{h}ætɕa (N) place; TL *sa cha* 'ibid.'

ʂəʈʂ^{h}an (N) village square; syn. (N) *skərjo*; borrowed from local Sichuanese Mandarin *shèchǎng* (standard Pinyin used) 社场 'social square'

ts^{h}oŋ-k^{h}aŋ (N-N) shop, store; TL *tshong khang* 'ibid.'

zæk^{h}aŋ (N) restaurant; TL *za khang* 'ibid.'; syn. *kuændzə* 'ibid.'

zbra (N) yak hair tent; TL *sbra* 'ibid.'

zgrəmbə-ko (N-SUFF) grave; cf. *zgrəmbə* 'coffin'

zjə~zjæ-ko (V~RED-SUFF) kiosk, small rural shop; cf. *zjə* (V3b) to sell

E4. Transportation

dʑæn (N) sedan chair, palanquin

grə (N) boat (archaic); syn. *ʈʂ^{h}uæn* 'ibid'; TL *gru* 'boat, ship'

maʈʂ^{h}e (N) horse cart (in the past); syn. *malaʈʂ^{h}e* 'ibid.'; CL *măchē* 马车 'ibid.'

malaʈʂ^{h}e (N) horse cart (in the past); syn. *maʈʂ^{h}e* 'ibid.'; CL (regional?) *mălāchē* 马拉车 'ibid.'

mot^{h}o (N) motorbike; CL *mótuō* 摩托 'ibid.'

t^{h}olatɕi (N) tractor; CL *tuōlājī* 拖拉机 'ibid.'

ʈʂ^{h}etsə (N) car; CL *chēzi* 车子 'ibid.'

tɕæ (N) road

konlu-tɕæ (N-N) (modern) road, highway; first part of the compound CL *gōnglù* 公路 'road, highway'

mdʑɔ-tɕæ (V-N) shortcut, lit. 'quick-road, fast-road'

rji-tɕæ (N-N) horse road, a road suitable for horses (hist.)

stɕə (N) load or burden on a pack animal (mostly in the past, e.g. itinerant traders)

ʈʂ^{h}uæn (N) boat; syn. *grə* 'ibid.'; CL *chuán* 船 'boat, ship'

vdzi-tɕæ (N-N) path that is suitable for walking, but not wide enough for riding (hist.), lit. 'people-road'

F. Intangible culture

F1. Religion

ɑ̲den (N) transmission of sickness (spirits of the deceased to the living); (V1b) to transmit a sickness (the spirits of the dead to the living); see §2.7.1. *Ancestors*)

ɑ̲joŋ (N) blessing, luck, fortune (in a religious context); TL *g.yang* 'luck(y), fortunate, prosperous, blessing, fortune, prosperity'

ɑ̲joŋdʑo̲ŋ (N) sauwastika; TL *g.yung drung* 'changeless, everlasting, sauwastika'; see *Appendix II: Culture-specific lexicon*

ɑ̃nælvəu (N) hell; TL *dmyal ba* 'hell'

ɑ̃næn- (N, BM) *gnyan* 'type of spiritual being'; TL *gnyan*, see §2.7.1. *Other divinities of folk religion*

ɑ̃næn-rgæ-væ (N-N-HSUF) *gnyan* stone, holy stone associated with *gnyan* spirits

ɑ̃næn-sʰi (N-N) *gnyan* tree, holy tree; old tree associated with the gnyan spirits;

ɑ̃to (N) recitation of the Buddhist or Bön scripture, often accompanied by ritual drummming; TL *gto* 'exorcise ritual'

ɑ̃væl (N) religious lay specialist with knowledge of Tibetan scripture

ɑ̃voŋ (N) religious supernatural power; TL *dbang* 'initiation, empowerment, power, might, force, control'

æne (N) nun; TL *a ni* 'ibid.'
æne-læma (N-N) nun

bændi (N) Tibetan Buddhism (in contrast to Bön)

bəmbə (N) Bönpo, follower of the Tibetan Bön religion; TL *bon po* 'ibid.'

ɕʰæ (N) god; TL *lha* 'ibid.'
ɕʰæɳʤi (N) demon, devil; Tib. *lha 'dre* 'gods and demons'; syn. *ɳʤi* 'ibid.'

ɕʰæwa (N) deer (as a religious decorative motive, e.g. on a temple roof, not as an actual animal); TL *sha ba* 'deer'

doŋkʰær (N) large prayer wheel fixed at a certain location; TL *dung 'khor* 'ibid.'

gæwə (N) charm box, amulet box; TL *ga'u* 'ibid.'

kʰædær (N) khata scarf; TL *kha btags* 'ibid.'

læma (N) lama (in Buddhism); TL *bla ma* 'ibid.'

le (N) destiny, karma, karmic connection from one's past: TL *las* 'karma, (karmic) action, deed'

ltsəʑa (N) hat used by lamas in Tibetan Buddhism, 'lama hat'

mæne-rgævæ (N-N) mani stone; first part TL *ma ni* 'mani'

mpʰri-va (N-HSUF) prayer beads; (V3) to tie together like prayer beads

mtɕʰærmi (N) butter lamp (used as an offering); TL *mchod mi* 'ibid.'
ræ-qʰo-mtɕʰærmi (N-N-N) butter lamp made of turnips that are carved hollow, usually used at Tsonkapa Memorial
mtɕʰærmi-zvær-ko (N-V-NMLZ) place for lighting and placing butter lamps in a temple

nærbə (N) wish-fulfilling jewel, heavenly jewel, religious decorative motive; TL *nor bu* 'gem, precious jewel'

ntɕʰæn (N) Tibetan religious ceremonial dance performed by monks; TL *'cham* 'ibid.'

ɳʤi (N) demon, devil; syn. *ɕʰæɳʤi* 'ibid'; TL *'dre* 'ibid.'

rgeva (N) merit-making funeral ritual organised 49 days after death; TL *dge ba* 'ibid., lit. meaning merit, virtue'

rgəmba ~ rgəmbəu ~ -rgən (N) temple, monastery; TL *dgon pa* 'ibid.'
æne-rgən (N-N) nunnery
bəmbə-rgən (N-N) Bön monastery
rdʑæ-rgən (N-N) Chinese temple

rgelu (N) *dge lug*, a school of Tibetan Buddhism; see *Appendix II: Culture-specific lexicon*

rgelupa (N) followers of the *dge lugs* school of Tibetan Buddhism; TL *dge lugs pa* 'ibid.'

rloŋrta (N) prayer flag; TL *rlung rta* 'ibid.'

rnæmtɕoŋ (N) kalachakra monogram; TL *rnam bcu* 'ibid.', lit. 'ten aspects'; the

nasal coda remains unexplained

rtɔ (N) sign, miracle performed by a reincarnated master, e.g. materializing things; TL *rtags* 'mark, sign, evidence'

skærva (N) circumambulation, pilgrimage, visit to a religious site; TL *skor ba* 'to surround, to circumambulate'

skə-lŋa (N-DIM) small Buddha amulet; first part of the compound TL *sku* '*kāya*, body, image, image of a buddha'

skəɳʤa (N) Buddha statue; TL *sku 'dra* 'religious image, figure of Buddha'

skəʑɔ (N) reincarnated master; Tib. *sku zhabs* 'your lordship' (see *Appendix II: Culture-specific lexicon*)

skəʑɔ-lŋa (N-DIM) young reincarnated master; typically refers to a boy that has been recognised as the reincarnation of a master in a lineage

spe (N) incense; TL *spos* 'ibid.'

spe-q^{h}o (N-?) place for placing incense sticks in a temple; syn. *spe-zvær-ko* 'ibid.'

spe-zvær-ko (N-V-NMLZ) place for placing incense sticks in a temple, lit. 'incense-lighting-place'; syn. *spe-q^{h}o* 'place for placing incense sticks in a temple'

stɕewa (N) rebirth; TL *skye ba* 'birth, rebirth'

s^{h}oŋrdʑe (N) enlightened being, Buddha; TL *sangs rgyas* 'ibid.'

ts^{h}ɔ (N); offering consisting of tsampa pears, candy, sugar, etc. cut into pieces and distributed to participants after finishing *ʑato*; TL *tshogs* 'collective offering'

tɕ^{h}elu (N) religious school or lineage, religious system; TL *chos lugs* 'ibid., dharma tradition, school of lineages'

tɕəut^{h}an (N) church; CL *jiàotáng* 教堂 'ibid.'

tɕ^{h}əŋk^{h}ær (N) water-powered prayer wheel; TL *chu 'khor* 'ibid., waterwheel'

tɕ^{h}ue (N) dharma, (Buddhist or Bön doctrine), religion; TL *chos* 'ibid.'

vdə (N) ogre, demon

vla (N) soul, spirit; TL *bla* 'ibid.'

vsaŋk^{h}aŋ (N-N) place for burning juniper incense; TL *bsang khang* 'incense house'

zəva (N) women's morning ritual (see §2.7.1. *ʑɕ^{h}ə spirits; Appendix II: Culture-specific lexicon*)

zgædær (N) large prayer flag pole with an attached large scripture cloth (e.g. at the entrance of a monastery); TL *sgo dar* 'ibid.'

F2. Artforms

ʑalə (N) traditional song; TL *glu* 'tune, song'

kæja (N) mask used by monks when performing *ntɕ^{h}æn,* religious ceremonial dances; possibly TL *ka ya* 'kaya, body (of Buddha)'

mdʑə (N) dance

bæ-mdʑə (N) Tibetan dances

rdʑæ-mdʑə (N) Chinese dances

ntɕ^{h}æn (N) Tibetan religious ceremonial dance performed by monks; TL *'cham* 'ibid.'

rəmu (N) picture, painting; TL *ri mo* 'ibid.'

ʈʂ^{h}aŋko (N) (modern) song; CL *chànggē* 唱歌 'to sing a song'

ʑə (N) traditional oral art in which women and men take turns singing songs

G. Society and abstract concepts

G1. General abstract concepts

ɕʰu (N) energy, force, power; TL *shugs* 'ibid.'

dənʈʰɔ (N) matter, affair, things to do; TL *don dag* 'meaning, purpose, matter, affair'

lmə (N) name

bæ-lmə (N-N) Geshiza name, name of a thing in Geshiza

rdʑæ-lmə (N-N) Chinese name, name of a thing in Chinese

lordʑə (N) history (rare); TL *lo rgyus* 'ibid.'

lu (N) character (of a person)

pænfa (N) way, method; CL *bànfǎ* 办法

phænʈʰɔ (N) benefit; TL *phan thogs* 'ibid.'

rda (N) gesture, signal; TL *brda* 'ibid.'

rue ~ ruo (N) height, stature (of a person)

skærma (N) time (archaic); TL *skar ma* 'minute'

tsʰətsʰæ (N) time, hour; TL *chu tshod* 'hour, clock'

vɕe-ko (V-NMLZ) use; cf. *vɕe* (V1b) to want, need

vkræɕʰə (N) blessing, good fortune, good luck; TL *bkra shis* 'ibid.'

G2. Society, trade, and interaction

ʂala (N) salary (usually of manual labourers); (V3b) to rent, hire; TL *gla* 'pay for work, wage, salary'

ʂamɔ (N) army; TL *dmag* 'ibid.'

bələn (N) debt; TL *bu lon* 'ibid.'

fuŋe (N) side income, short-time migrant labour typically outside the farming periods; CL *fùyè* 副业 'side occupation'

goŋ (N) price; TL *gong* 'ibid.'

kʰɛxui (N) meeting; CL *kāihuì* 开会 'ibid.'

kʰrən (N) punishment (V1b) to have a rule, to follow a rule; TL *khrims* 'law, rule, sentence, regulation

kuntso (N) regular salaried office job; *gōngzuò* 工作 'job'

lŋa-mdzo (N-?) gift given upon the birth of a child

læ (N) lie, fake

lba-la (N-HSUF) 1. money 2. leaf (original meaning)

leska (N) work (physical labour, such as agricultural work and working on a construction site); TL *las ka* 'ibid.'

loŋjæn (N) Chinese silver dollar (hist.); CL *yínyuán* 银元 'silver dollar'

ndure (N) unpaid labour for a monastery in the past

ŋʈʐolu (N) rule, custom; TL *'gro lugs* 'customs, way of walking, way of life'

pʰə (N) costs, expenses

dzi-pʰə (N-N) food bill, food costs

ju-pʰə (N-N) gasoline costs

wrə-pʰə (N-N) water bill

pʰiəutsə (N) (paper) money; CL *piàozi* 票子 'ibid.'

pʰɔ (N) salary of government workers and officials; TL *phogs* 'salary'

rdʑə (N) property, family property that is inherited by the younger generations; TL *rgyu* 'property, wealth, material'

sənrə (N) birthday; CL *shēngrì* 生日 'ibid.
stærmu (N) wedding
stɕæ (N) profit
tsʰoŋ (N) trade, business; TL *tshong* 'ibid.'
tɕutɕu (N) meeting
tɕʰæpa (N) fine; TL *chad pa* 'penalty, fine'
vka (N) order; TL *bka'* 'word, order'
vle (N) corvée labour for the *apən* chieftains in the past on certain days without a salary

G3. State institutions and politics

kæmpu (N) (party) cadre; CL *gànbù* 干部 'ibid.'
(koŋ)ʂe (N) (people's) commune, a past rural administrative level still used in conversation and frequently further abbreviated just to *ʂe*; abbreviated CL from *rénmín gōngshè* 人民公社 'ibid.'
konʈʂʰantan (N) Communist Party; CL *gòngchǎndǎng* 共产党 'ibid.'
kuimintan (N) Nationalist Party; CL *guómíndǎng* 国民党 'ibid.'
kʰefan (N) Chinese economic reform started in 1978; CL abbreviation of *gǎigékāifàng* 改革开放 'ibid.'
tanjyæn (N) party member; CL *dǎngyuán* 党员 'ibid.'
tɕefæn (N) Liberation; *jiěfàng* 解放 'ibid.'
tɕixua (N) (family) planning; CL *jìhuà* 计划 'program, planning'
tsʰuntʂan (N) village chief; CL *cūnzhǎng* 村长 'ibid.'

G4. Games and play

ba (N) mahjong (general term)
  bæ-ba (N-N) Tibetan-style mahjong
  rdʑæ-ba (N-N) Chinese-style mahjong
ɕʰor (N) dice; TL *sho* 'ibid.'
dʐəpʰe (N) deck of cards, playing cards
lɣe (N) joke
nwatɕə (N) playing; (V3b) to play
rdʑæn (N) lot, ballot (used in drawing lots)
rkʰu (N) bet, wager
sævqʰi (N) prank, joke
tɕʰu (N) ball; CL *qiú* 球 'ibid.'

G5. Feelings, perception, and mental activity

brəwa (N) taste, flavor; TL *bro ba* 'ibid.'
ɕʰæmu (N) effort
jæva (N) envy
mdɔ (N) colour; TL *mdog* 'ibid.'
məka (N) shame
ntsʰæ-lma (N?-HSUF) dream
rdʑəmbre (N) conscience
sæmnoŋ (N) thinking
smər (N) smell (both good and bad)
sʰən (N) heart, mind (in the abstract sense); TL *sems* 'heart'
  vdzi-sʰən (N-N) human nature, human mind, lit. 'human-heart'
tsʰupa (N) anger
tʰævɕʰe (N) way, method; TL *thabs shes* 'ibid.'
tɕʰətɕʰi (N) preparation; likely a TL *gra sgrig* 'ibid.'
vlo (N) ingenuity, wit, plan, intelligence; TL *blo* 'intelligence, plan, idea'
vsæmba (N) regards, kindly feelings; TL *bsam pa* 'thinking, wish, intention'

wəkʰo (N) heart (in the abstract sense), insides of the mind; TL *blo khog* 'insides of the mind'
xæmba (N) greed; TL *ham pa* 'ibid.'
zda (N) memory
zdu (N) suffering, misery, sorrow; TL *sdug* 'ibid.'

G6. Language, communication, and writing

ʑpi (N) saying, metaphor; TL *dpe* 'ibid.'
dʑədə (N) writing, letter (missive), letter as a unit of a writing system, book
ɣəju (N) account book
læn (N) answer, reply, response; TL *lan* 'ibid.'
mna (N) vow, oath; TL *mna'* 'ibid.'
skæ (N) language, sound (both animate and inanimate origin); TL *skad* 'ibid.'
bæ-skæ (N-N) Geshiza language, lit. 'Tibetan language'
pʰjə-skæ (N-N) foreign language, lit. 'outside-language'; syn. *wæikui-skæ* 'ibid.'
rdʑæ-skæ (N-N) Chinese language
wekui-skæ (N-N) foreign language; syn. *pʰjə-skæ* 'ibid.'; first part of the compound CL *wàiguó* 外国 'foreign country'
sketɕʰa (N) talk, speech, words; TL *skad cha* 'ibid.'
snote ~ snoti ~ ʂnote ~ ʂnoti (N) story (pronunciation varies slightly across Eastern Geshiza speaking communities)
tɕʰintʰie (N) invitation card (e.g. for a wedding); CL *qǐngtiě* 请帖 'ibid.'
vɕæpa (N) speaking, chat; TL *bshad pa* 'said, told, explained, explanation'

G7. Temporal nouns

days:

bə-sni (?-N) today
qʰæsʰi (N) tomorrow
sʰæ-de (?-?) day after tomorrow
zɣæ-de (?-?) three days from now
ɲo-de (POST-?) four days from now
mæ-gə (?-?) yesterday, also used for recent past in general
ŋɖʐə-gə (?-?) day before yesterday
ŋui-gə (POST-?) three days ago
sʰo-ŋui-gə (ADV-POST-?) four days ago

years:

bə-vi (?-N) this year
sʰæ-vi (?-N) next year
zɣæ-vi (?-N) year after the next
ʑə-vʑa (?-?) last year
ŋɖʐə-vʑa (?-?) year before the last

divisions of the day:

stɕara (N) dawn, break of day; TL *skya rengs* 'ibid.'
gædə-ra-bri (N-N-V) dawn, break of day; lit. morning-cock-crow
gædə-ɣi (N-?) early morning
gædə (N) morning
nælæ (N) daytime, the bright time of the day

mdzo (N) midday
mdzo-ŋui (N-POST) forenoon
mdzo-ŋui (N-POST) afternoon
gəɕʰo (N) evening
ɕʰua (N) night
ɕʰɔ-tɕin (N-POST) midnight (used for approx. 12-2AM); *ą̈tɕil ~ ą̈tɕin* 'middle'; syn. *ɕʰua-qlə* 'ibid.'
ɕʰua-qlə (N-?) midnight (used for approx. 12-2AM); syn. *ɕʰɔ-tɕin* 'ibid.'

past, present, and future:
ą̈na (N) former, ancient; TL *gna'* 'ibid.'
ŋəma (N) formerly, in the past; TL *sngon ma* 'past, in the past, former, formerly'
mæ-gə-rja (?-?-N?) recent, recently in the past
tɕæmu (N) a moment ago
tʰævæ (N) now; likely *tʰæ-væ* (N?-HSUF) in the light of comparative data
tʰævæ-re (N-?) current, present
lɔ-re (ADV-? > N) coming, next

Others:
ɕintɕʰi (N) week; CL *xīngqī* 星期 'ibid.'
zlæɕʰɔ (N) intercalary month, leap month; TL *zla shol* 'ibid.

G8. Locational nouns

proximal location:
rə-dze (PREF-N? mountain side or up proximal location
næ-dze (PREF-N?) river side or down proximal location
gæ-dze (PREF-N?) upriver side proximal location
wə-dze (PREF-N?) downriver side proximal location

medial location:
jolva (N) mountain side or up medial location
jovə (N) river side or down medial location
æ-skʰo (PREF-N?) upriver side medial location
æ-zɣæ (PREF-N?) downriver static medial location

distal location:
æ-ru (PREF-N?) mountain side or up distal location
æ-ɲi (PREF-N?) river side or down distal location
æ-kʰo (PREF-N?) upriver side distal location
æ-ɣæ (PREF-N?) downriver side distal location

river-sides:

bjæ-zde (N?-N?) right side of a river when looking downstream

ɣæ-zde (N?-N?) left side of a river when looking downstream; syn. *k^{h}uə-zde* 'ibid.'

k^{h}uə-zde (N?-N?) left side of a river when looking downstream; syn. *ɣæ-zde* 'ibid.'

sk^{h}o-zde (N-N?) side of rivulet diagonal vis-à-vis the main river that is upriver seen from the main river

zɣæ-zde (N-N?) side of rivulet diagonal vis-à-vis the main river that is downriver seen from the main river

mbəzli *tripod sides:*

tɕægo (N) space in front of the *mbəzli* tripod from which direction the fire is lighted

wə-k^{h}uə (PREF-N?) space towards the river from the *mbəzli* tripod

wə-sk^{h}o (PREF-N?) space upriver from the *mbəzli* tripod

wə-zɣæ (PREF-N?) space downriver from the *mbəzli* tripod

cardinal directions (rarely used):

bjoŋ (N) north (rare); TL *bjang* 'ibid.'

ɕ^{h}ær (N) east (rare); TL *shar* 'ibid.'

ɕ^{h}o (N) south (rare); TL *lho* 'ibid.'

nəu (N) west (rare); TL *nub* 'ibid.'

other locations:

dop^{h}a (N) neighbouring

k^{h}æ- (N, BM) side, edge

k^{h}æ-mær (N-?) mountain-side of a road; Geshiza roads typically have the mountains on one and the river down in the valley on the other side

k^{h}æ-smæ (N-?) river-side of a road; Geshiza roads typically have the mountains on one and the river down in the valley on the other side

k^{h}æwa (N) edge, side; likely originates as the apudessive (*-wa*) of *k^{h}æ-* 'side, edge': *k^{h}æ-wa*

ŋərə (N) front

p^{h}jə (N) out, outside, exterior; likely TL *phji* 'ibid.'

wnu (N) surroundings, side or surrounding space of something

H. Verbs

H1. Class 1a

ɑ̊du (V1a) to be harmful; TL *gdug* 'dangerous, harmful, poisonous'

ɑ̊jær (V1a) to be good

ɑ̊næ (V1a) to be dark

ɑ̊ŋo (V1a) to be muddy (e.g. a road)

ɑ̊rəu (V1a) to be shady

ɑ̊sər (V1a) to be tight

ɑ̊tsoŋ (V1a) to be clean; TL *gtsang* 'clean'

ɑ̊və (V1a) to be dense (used of vegetation, e.g. a lot of wheat or corn on the field or trees in a forest growing close to each

other)

bær (V1a) to be low, short vertically

bə (V1a) to be thin (surfaces)

dær (V1a) to be well-developed, well-equipped (of monasteries, e.g. many monks present); TL *dar* 'to be(come) wide-spread, popular, well-developed'; syn. *dʐæ* (V1a) 'ibid.'

dɔ (V1a) to be clear (of speech); TL *dag* 'pure, clear'

due (V1a) to be clear (liquids)

dʑi (V1a) to be long

dʑo (V1a) to be many

dʐæ (V1a) to be well-developed, well-equipped (of monasteries, e.g. many monks present); syn. *dær* (V1a) 'ibid.'

rkən (V1a) to be rare, scarse; TL *dkon* 'rare, scarce'

kʰji (V1a) to be cheap

lŋo (V1a) to be empty

lo (V1a) to be hot (tactile sensation)

ltʰə (V1a) to be straight

luə (V1a) to be thick (cylindrical objects)

mbla (V1a) to be smooth (and glaring, such as a smooth surface)

mkʰə (V1a) to be smoky (e.g. a room with a lot of smoke inside)

mɲæn (V1a) to be equal, even (with someone); TL *mnyam* 'even, equal, alike'

nəu (V1a) to be deep

ɲji (V1a) to be red

nsʰo (V1a) to be bright

nvə (V1a) to be soft

ɲa (V1a) to be black

ɲəu (V1a) to be spicy (food)

ŋær (V1a) to be strong (alcohol)

ŋi (V1a) to be good, okay, acceptable

ŋo (V1a) to be painful

ŋʤʐa (V1a) to be similar, same; TL *'dra* 'similar, same'

ɴquə (V1a) to be loose (e.g. a belt)

pær (V1a) to be flat

pʰæn (V1a) to be beneficial; TL *phan* 'to help benefit'

pʰə (V1a) to be grey

pʰru (V1a) to be white

qæl (V1a) to be concave

qʰi (V1a) to be bad

rdʑe (V1a) to be abundant

rgi (V1a) to be hard (physical property)

rɣa (V1a) to be steep

rɣo (V1a) to be bent, curved

rka (V1a) to be hard, tiring; likely TL *dka'* 'difficult, hard'

rkʰo (V1a) to be cold

rɲæ (V1a) to be slippery

rɲə (V1a) to be light green

rŋə (V1a) to be green, light blue

ro (V1a) to be narrow

rzəu (V1a) to be spicy (only used of red pepper in Eastern Geshiza; common word for 'spicy in Western Geshiza')

sɲa (V1a) to be bitter, salty

sqra (V1a) to be less fine, grit-like (e.g. sand)

sro (V1a) to be exposed to the Sun; opposite of *arəu* 'to be shady'

stəu (V1a) to be fine (e.g. flour or sand)

tsʰa (V1a) to be many (of wild animals, daemons, and ogres)

tsʰo (V1a) to be thin (cylindrical objects)

tɕæ-dʑi (N-V1a > V1a) to be far; *tɕæ* 'road'; *dʑi* V1a 'long'

tɕæ-ne (N-†V > V1a) to be close (rare in Eastern Geshiza); *tɕæ* 'road'

tɕɔ (V1a) pleasant, comfortable

tɕʰe (V1a) to be narrow, thin
tɕʰə (V1a) to be sweet
vde (V1a) to be cheap
wde (V1a) to be flat
wsʰə (V1a) to be alive (only animals, not people or plants)
wtsæ (V1a) to be warm, hot (usually of weather)
wtɕʰər (V1a) to be sour
wʑa (V1a) to be thick (e.g. clothes)
zva (V1a) to be coarse (e.g. beard), itchy (e.g. a sweater)
ʑæʑæ (V1a) to be easy
ʑə (V1a) to be wide
ʑo (V1a) to be delicious, tasty
ʑɔ (V1a) to be rapidly flowing (of water)

H2. Class 1b

ꞏaden (V1b) to transmit a sickness (spirits of the deceased to the living); (N) transmission of sickness by the spirits of the dead; see §2.7.1. *Ancestors*
ꞏadi (V1b) to be mistaken
ꞏadu (V1a) to harm; TL *gdug* ‘dangerous, harmful, poisonous’
ꞏajə (V1b) to be itchy; syn. *rtɕʰæ* (V1b) ‘ibid.
ꞏarə (V1b) to bark (dogs)
ꞏasæl (V1b) to be exposed and consequently visible (e.g. one’s feet with the shoes removed, one’s stomach with the shirt lifted up on hot weather)
ꞏatʰa (V1b) to get stuck
ꞏatʰə (V1b) to block up, get blocked up (e.g. downspout of a house)
ꞏazi (V1b) to hit a target
ꞏazə (V1b) to break (sticks)
be (V1b) to flood, overflow; (N) flood
m-bə~bə (VBLZ-[RED.ADJZ~V1a]$_{ADJ}$ > V1b) to become thin(ner); used of surfaces (e.g. the cultivated land on a field or one’s face due to sickness etc.); cf. *bə~bə* ‘thin (of surfaces)’
bəla (V1b) to be turbid (of liquids)
bja (V1b) to crack (wood)
bji (V1b) to dawn, to break (of the day); meaning likely related to *bji* (V1b) ‘to be tall, high’
bor (V1b) to defoliate, fall (leaves in the autumn)
bræ$_1$ (V1b) to break (strings)
bræ$_2$ (V1b) to stop raining; possibly related to *bræ$_1$*
brə (V1b) to break (fabric and clothes)
bre (V1b) to be time for something, to arrive (the time to do something)
bri (V1b) to crow (cock, rooster)
ɕʰær (V1b) to dawn (used with *stɕara* ‘dawn, break of the day’ in the concrete sense and with the adjective *stɕæpə* ‘happy’ in a metaphorical sence ‘happiness dawns on someone’
də (V1b) inanimate existential verb; occasionally conjugates as (V2b)
dor (V1b) to burn, be on fire (by itself)
dɔ (V1b) to run out of, be finished with agricultural produce that needs to be taken somewhere
dzəu (V1b) to be present, show up, attend
dzuɔ (V1b) to appear (stars one sees when rising up too fast), to see stars
n-dʑælæ (VBLZ-N > V1b) to peel off (old skin); cf. *dʑælæ* ‘skin’
dʑə (V1b) to melt (e.g. butter)
dʑu (V1b) to suppurate, discharge pus (of infected wounds); syn. (V1b) *spæ* ‘ibid.’

ɖzɻæn (V1b) to miss, to remember; TL *dran* 'ibid.'

gi$_1$ (V1b) to abate, calm, reduce in intensity (winds and storms)

gi$_2$ (V1b) to be covered by clouds or smoke

grə (V1b) modal verb used only in the negative *mə-grə* 'to not be able (due to adverse conditions, such as not being able to eat because the food is not ready for eating yet)'

grəu (V1b) to have a landslide, collapse in a landslide fashion

guæ (V1b) 1. to collapse (e.g. mountain slope), 2. to break apart 3. to come off its hinges (door) 4. to fall off (animal horns) 5. to come off (dirt from clothes that are washed or wiped)

ɣa (V1b) to be possible to happen, to have a problem; commonly used negated as a lexical verb: *mi-ɣa* 'No problem.'

jæl (V1b) 1. to change colour, discolour, to fade (of colour) 2. to become sober (after drinking; TL *yal* 'fade, vanish, dissolve'

jɔ (V1b) to go off (e.g. electricity during a power cut)

kə (V1b) to be conserved (e.g. food for future use)

k^{h}ræ (V1b) to solidify, freeze

k^{h}rən(V1b) to have a rule, to follow a rule; (N) punishment; TL *khrims* 'law, rule, sentence, regulation

k^{h}u (V1b) to be over (one's turn in an activity involving turn-taking); only used in the past tense

læn (V1b) to break, go bad; CL *làn* 烂 'rotten, bad'

lbəu (V1b) 1. to explode, erupt Vi 2. to bloom (flowers)

lə (V1b) to boil Vt (e.g. water)

ləu (V1b) to be covered with forest and thus impassable (old roads)

ləle (V1b) to wallow, bathe in mud (pigs)

lk^{h}e (V1b) to get overcooked (usually used only of noodles)

lo (V1b) to hibernate in winter (mostly used of bears, marmots, and snakes)

lələ (V1b) to dig the ground with a snout (pigs)

lp^{h}e (V1b) to rest against something (inanimate objects)

lu (V1b) to be blind

lvo (V1b) to freeze (water)

ma (V1b) negative inanimate existential verb; occasionally conjugates as (V2b)

mbæbæ (V1b) to be filled to the brim

mbær (V1b) to ignite

mbobo (V1b) to make a sound (animals general, excluding dogs)

mdaer (V1b) to bite, sting (insects)

mdʑi (V1b) to be deaf

mdʑɔ (V1b) fast; *mgyogs* 'ibid.'

mə (V1b) to be cooked ready (of food)

mgre (V1b) to feel shy (e.g. in front of prominent people of high social status)

mk^{h}ə (V1b) to suffer from smoke

mk^{h}ə-ɲa (N-V1a > V1b) to become coloured black by smoke (e.g. walls in the kitchen), lit. 'to smoke-black'

mp^{h}æl (V1b) to increase

mts^{h}æ (V1b) to fill up (e.g. a container)

mts^{h}ær (V1b) to have a fun time with activities organised on special occasions, such as a festival; TL *mtshar* 'fantastic, marvellous, wondrous'

ndæra (V1b) to leak

ndzo (V1b) to be the time for (seasons and special events, such as the New Year);

gæ-ndzo ‘has started’, *dæ-ndzo* ‘is over’

ndzu (V1b) to be organised a gathering of monks for a prayer recital (e.g. *smon lam, dge ba*); possibly a TL *'dzugs* ‘to hold (a meeting)’

ndʑæl (V1b) to be thankful

nə (V1b) to be lighted

no (V1b) to smell (opportunistic perception)

ntsʰɔ (V1b) to prick (e.g. thorn of plants, needles)

ntɕʰær (V1b) to go aimlessly from place to place (used of animals, such as stray dogs)

ntɕʰɔ (V1b) to feel cold; TL *'khyag* ‘be cold, freezing’

nzrə (V1b) to form dew; (N) dew

ŋʃʂulu (V1b) to dig the ground with the snout (pigs)

ŋʃʂʰɔ (V1b) to produce, eject sparks (fire)

ŋær (V1b) to not rain

ŋgɔ (V1b) to have a narrow part in the body; (N) narrow part in the body

ŋgrɔ (V1b) to bolt (horses)

ŋkʰru (V1b) to shake (inanimate, shaking caused by an external actor)

ŋkʰuæ (V1b) to extend, cover from a starting point

ɴqar (V1b) to disperse into different directions (e.g. bees, goats, sheep)

pʰæn (V1b) to benefit; TL *phan* ‘to help benefit’

pʰə (V1b) to cost

ɴ-qæl~qæl (VBLZ-[RED.ADJZ~V1a]$_{ADJ}$ > V1b) to, become concave-like; used e.g. of land subsidence; cf. *qæl~qæl* ‘concave’

qrə (V1b) to break (e.g. cups, plates)

ɐ̯-ræ (V1b) to appear (e.g. rainbows)

rbə (V1b) to be piled up

rgæn (V1b) to become old (used only of nun-human subjects: animals and plants); TL *rgan* ‘old, adult, mature, elder’

rja (V1b) to spend the night away from home without returning (animals)

rji (V1b) to appear, emerge (ogres and demons); likely related to *rji* (V2b) ‘to stand, wake up’

rŋa (V1b) to hatch (animals born of eggs)

rŋaŋ ~ **rŋoŋ** (V1b) to get old (inanimate, of things); TL *rnying* ‘old, ancient’

ro (V1b) to swell (body part)

n-ro~ro (VBLZ-[RED.ADJZ~V1a]$_{ADJ}$ > V1b) to become narrow(er); used e.g. when rebuilding one’s house into a smaller one; cf. *ro~ro* ‘narrow’

rtɕʰæ (V1b) to be itchy; syn. *ɐ̯jə* (V1b) ibid.

si (V1b) to be finished run out of something (e.g. electricity, battery)

skæn (V1b) to have a drought; possibly a TL *skam* ‘to dry up’

ske (V1b) modal verb used only in the negative *mə-ske* ‘should not’

sko (V1b) to be able

skʰuæ (V1b) to cut, to be sharp enough to cut (tools with blades)

smɔu (V1b) to grow, have wool (e.g. sheep, goats, and yaks); (N) wool

sŋele (V1b) to wither (plants)

spæ (V1b) suppurate, discharge pus (of infected wounds); (N) pus; syn. *dʑu* ‘to suppurate, discharge pus (of infected wounds)’

spo (V1b) to dry (e.g. food); (N) grassland, treeless level dry ground, lawn

sqə (V1b) to go bad (food)

stɕin (V1b) to break, have a crack (glass)

sʰue (V1b) to wake up

tɔ (V1b) to be accurate (e.g. predictions); possibly TL *tag* 'correct'

tʰær (V1b) 1. to have a road or means to go on further (e.g. on a mountain), usually used in the negative *mi-tʰær* 'to lack a road, lack a way or means to continue going on further' 2. to have means to go on in life independently without the support of parents (children, or animal babies); TL *thar* 'be able to pass through, be liberated'

tsə (V1b) to rot

tsʰær (V1b) to be finished (of house building); possibly TL *tshar* 'to be finished' through narrowing of semantic scope

n-tsʰo~tsʰo (VBLZ-[RED.ADJZ~V1a]$_{ADJ}$ > V1b) to become thin(ner) (cylindrical objects), used e.g. of legs and hands of elderly people; cf. *tsʰo~tsʰo* 'thin'

tɕʰæ (V1b) to have free time

n-tɕʰe~tɕʰe (VBLZ-[RED.ADJZ~V1a]$_{ADJ}$ > V1b) to become narrow(er); cf. *tɕʰe~tɕʰe* 'narrow'

væ (V1b) to become old (and turn into an undesirable state); mostly used of plants that are not good for eating anymore)

vɕe (V1b) to want, need

vgre (V1b) to ache

vsi (V1b) to happen, occur

vtsar (V1b) to rust; likely from Tib. *btsa'* 'to rust'

wæl (V1b) to disperse (used of clouds)

wɕi (V1b) to sweat; (N) sweat

wdʑəu (V1b) to conflagrate, have a conflagration (e.g. a mountain forest or a house ablaze); (N) conflagration

wdʑi (V1b) to have a hole

wi (V1b) inalienable existential verb; occasionally conjugates as (V2b)

wnæ-tsəu (N-V > V1b) to heat (Sun)

wpə (V1b) to become brittle (wood and cloth)

wro (V1b) to dry (e.g. clothes), to wither (plants)

wʑə-mu (†N-†V > V1b) to occur (earthquakes)

xəu$_1$ (V1b) to be good; CL *hǎo* 好 'ibid.'

xəu$_2$ ~ xu (V1b) to cave in, collapse by caving in

zbjoŋ ~ zdʑoŋ (V1b) to have diarrhoea

zdo (V1b) to be cloudy, overcast

zlo-ɲa (?-V >V1b) to be cooked black by fire (e.g. food, but also the utensils used for cooking); cf. *ɲa* 'to be black'

zvæ (V1b) to be numb

ʑə (V1b) to go away, reduce (swelling)

ʑo (V1b) to go into hibernation; syn. *ɲjæ-ʑo* 'ibid.'

ɲjæ-ʑo (REFL-V1b > V1b) to go into hibernation; syn *ʑo* 'ibid.'

ʑu (V1b) to clear (sky)

H3. Class 2a

bji (V2a) to be tall, high

ɖʐo (V2a) to be competent, capable; TL *drag* 'strong, serious, fierce'

doŋ (V2a) to be clever, intelligent

kʰrəwdə (V2a) to be handsome, beautiful

ldə (V2a) heavy

mdze (V2a) to be beautiful; possibly TL *mdzes* 'ibid.'

mærəu (V2b) to be low class, vulgar; TL *ma raps* 'low class, vulgar'

mtɕʰær (V2a) to be handsome, beautiful
ndʑu (V2a) to have great spiritual power, be extraordinary; used when talking about religious figures, such as *skəʑɔ*, and emphasising their miraculous nature in contrast to ordinary people
ɴqʰi (V2a) to be thin (people and animals)
nzən (V2a) to be 'tight-lipped' (i.e. capable of keeping secrets, not talking about other people's affairs too much or telling lies all the time)
qʰi (V2a) 1. to be ferocious (used in both good and bad senses), be good at something 2. be bad (generally inanimate)
rdzu (V2a) to be handsome (men)
rkʰæ (V2a) to be good at, skilful
stɕe (V2a) to be happy
tsʰuə (V2a) to be fat
tɕʰæ (V2a) to be big, large, old
vɣi (V2a) to be arrogant, fearless of others, and thinking high of him/herself
vtsʰe (V2a) to be rich, wealthy
wre (V2a) to be many
wtsʰo (V2a) to be weak, incapable of working (negative valuation)
wzə (V2a) to be few
zdu (V2a) to be pitiable; TL *sdu* 'miserable, suffering, pain

H4. Class 2b

ɑ̂ɕær (V2b) to pass, go by
ɑ̂məmə (V2b) to discuss
ɑ̂rara (V2b) to fight
ɑ̂ri (V2b) to walk, go by foot
  ɑ̂ri-ra (V2b-FREQ > V2b) to walk, go by foot
ɑ̂ru (V2b) to get lost (e.g. on the mountains)
ɑ̂tʰa (V2b) to spend time, stay non-permanently in a place
ɑ̂tso (V2b) to speak too much
ɑ̂vi (V2b) to heal
bædʑo (V2b) to get separated, divorce
m-bær~bær (VBLZ-[RED.ADJZ~V1a]$_{ADJ}$ > V2b) to bend to upper body; cf. *bær~bær* 'low'
bəu (V2b) to descend, get off (e.g. from a car); TL *bab* 'to descend, alight, rain'
bjo (V2b) to fly
  bjo-la (V2b-FREQ > V2b) to fly
blə (V2b) 1. to go away, disappear from view 2. to miss an opportunity
bobo (V2b) to be busy
ɕə (V2b) to go
ɕʰɔ (V2b) to be (too) many, surplus, left over; TL *lhag* 'to be left, above, more than, excess'
  n-ɕʰɔ (AB-V2b > V2b) to increase
dar (V2b) to age, to get old (only animate)
n-dəu (VBLZ-N > V2b) to be poisoned; cf. *dəu* 'poison', TL *dug* 'ibid.'
dza (V2b) to fall down
dzo (V2b) to fit into (e.g. into an almost full car)
dʑævzə (V2b) to roll (e.g. a stone down a mountain slope)
dʑə (V2b) to meet, come across
dʑi (V2b) animate existential verb
dʑo (V2b) to bear, able to put up with
dʑua (V2b) to swim
ŋ-gædə (VBLZ-N > V2b) to do sth in the morning; cf. *gædə* 'morning'
ŋ-gogo (VBLZ-N > V2b) to share; cf. *gogo* 'sharing'

græl (V2b) to be finished with (e.g. meeting, work, wedding ceremony), to be dispersed and go to home

ɣor (V2b) to help

ŋ-ɣər~ɣo (?-RED.ADJZ~V2b) to help mutually (e.g. people, countries), the function of the prefix unclear

ɣuəɣue (V2b) to quarrel, argue (verbally and/or with physical violence)

jæ$_1$ (V2b) to become drunk

jæ$_2$ (V2b) to have one's turn

jə (V2b) to say

jəu (V2b) to grow vertically (e.g. children)

kjo (V2b) to get angry

k^{h}e (V2b) to envy; always used in the negative; e.g. *mə-k^{h}e*

a̱-le (INTR-V2b) to fall

lɣa (V2b) to be crazy

lɣa-ra (V2b-HSUF >V2b) to behave like crazy

lmazə (V2b) to give birth, to have a baby; possibly a historical incorporation with *zi* 'son'

lmæmæ (V2b) to cry

lxua (V2b) to come out, appear, return (towards) home

mæmu (V2b) to move (no change in the location, e.g. moving one's body)

mbələu (V2b) to pass (e.g. a village on a way to somewhere), to set (Sun)

mdʑi (V2b) to be (as a part of a group)

s-məu (VBLZ-N > V2b) to close the eyes; cf. *məu* 'eyes'

mji (V2b) to choke (on food)

mk^{h}uə (V2b) to lack, not have

mnæ (V2b) 1. to (be able to) reach (a thing with a hand) 2. to live (up to a certain age)

mɲa ~ mja (V2b) negative copula, not to be

mɲə (V2b) to know, be able

mprə (V2b) to take shelter from rain

mp^{h}æn (V2b) to suffer financial loss (to someone else's benefit, e.g. in a transaction)

mp^{h}ræ (V2b) to be in harmony, have a good relationship with, love dearly, to fit

mtɕ^{h}e (V2b) to give way, get away from, to step aside

na (V2b) to rely on, be dependent on (thing or person)

nɕ^{h}ə (V2b) to jump; syn. *nɕ^{h}ə-p^{h}o* 'ibid.'

nɕ^{h}ə-p^{h}o ~ nt^{h}ə-p^{h}o (V2b-? > 2b) to jump; syn. *nɕ^{h}ə* 'ibid.'

ndə (V2b) to get wet

ndja (V2b) to learn a lesson (and thus not to do something again)

ndodo (V2b) to lie down (e.g. on a bed)

ndɔdɔ (V2b) to be careful

ndzo (V2b) to sit, stay, live in a place

ndʑə (V2b) to be inside (a space conceptualised as a container)

ndʑər (V2b) to change; TL *'gyur* 'to change, turn into'

ne (V2b) to rest, take a break

ŋgræl (V2b) to line up

ɲjəu (V2b) to be sleepy

ɲjæji (V2b) to play (children)

ŋkuætæ (V2b) to sit restlessly shaking the chair; also used of creaking and squeaking chairs and tables

nrekær (V2b) to take turns in doing something

ns^{h}ærdʑə (V2b) to have extensive knowledge, be well familiar with sth

nt^{h}ant^{h}a (V2b) to argue (only verbally, no physical violence)

ntsʰə-rɣi (†N-V3b > V2b) to wash one's face; a historical incorporation with *rɣi* (V4) 'to wash'
n-tɕʰæ (AB-V2b > V2b) to grow bigger (e.g. children), increase (the amount of water in rivers)
ntɕʰæra (V2b) to have a fun time, amuse oneself
ntɕʰe (V2b) to hide oneself
nwa (V2b) to be in disorder
nwa-ra (V2b-FREQ > V2b) to be in disorder, be messed up, be like crazy
nwə (V2b) to owe (e.g. money)
nzætsɔ (V2b) to squat
nzji (V2b) to get used to
nʑæ (V2b) to be born
ŋdʐere (V2a) to be happy, rejoice
ŋgæde (V2b) to call, shout
ŋgrə (V2b) to lean against (human subjects)
ŋɣædzo (V2b) to stumble, trip
ŋkʰær (V2b) 1. to turn back, return 2. to vomit; likely semantic connection between 1. and 2.
ŋkʰræ (V2b) to shiver (e.g. of cold), to tremble (e.g. of fear)
ŋkʰruŋ (V2b) to reincarnate (reincarnated masters, not common people); TL *'khrungs* 'to be born, come into being'
ŋo (V2b) to become sick
ŋuə (COP, V2b) copula, to be
pʰje (V2b) to escape
qʰæqʰæ (V2b) to laugh
qʰor (V2b) to snore
rdʑu (V2b) to run, drive a vehicle or ride an animal fast; TL *rgyug* 'to run, race'
rdʑu-ra (V2b-HSUF > V2b) to run
rɣuæle (V2b) to move (e.g. one's body when sitting); **rɣuæ* not used independently in Balang, but *-le* it might be the historical repetitive suffix *-lV ~ -rV* (see §6.2.3.10)
rga (V2b) to love; TL *dga'* 'ibid.'
rgə (V2b) to sleep
ndʑæ-rgə (?-V2b > V2b) to sleep against something; possibly a historical incorporation
rgolo (V2b) to bend the waist, to crawl (e.g. babys); **rgo* not used independently in Balang, but *-lo* it might a historical suffix
ri (V2b) to be remaining. left over
rje (V2b) to go
rji (V2b) to stand, wake up
rki (V2b) to capable to eat a lot, to be a good eater (especially used of pigs)
rnæji (V2b) to hear badly, to have hearing impairment (still hearing something)
rɲæ (V2b) to slip
rŋæqə (V2b) to kneel, (e.g. to express a deep apology); a historical incorporation with *rŋæ-* of *rŋæ-məu* 'knee'
rtsə (V2b) to cough
səsji (V2b) to think
sko (V2b) to hold, carry, have in one's possession
skʰəre (V2b) to shout
spa (V2b) to be thirsty
sqʰlə (V2b) to be late
srən (V2b) to bear, endure; TL *sran* 'ibid.'
stɕær (V2b) to be afraid, frightened
stɕe (V2b) to be born
sʰæ (V2b) to die; usually used only of people and animals, not plants
ɲjæ-sʰæ (REFL-V2b > V2b) to commit suicide
tje (V2b) 1. to become 2. to be enough 3. to come (reference point outside the ego)
v-tʰæ (V2b) to beg, ask from the gods

tʰe (V2b) to belong, be included in, be part of something
tʰə (V2b) to sink, drown (of ships, people, and animals)
n-tsʰægzə (VBLZ-N > V2b) to dress up; cf. *tsʰægzə* 'clothes'
ɲjæ-tsʰi (REFL- †V > V2b) to hang oneself; the non-derived, non-reflexive verb †*tsʰi* does not exist anymore in the language
tɕutɕu (V2b) to gather
tɕʰa (V2b) to be able
tɕʰæ (V2b) to feel a feeling (e.g. pity, shame)
ą̂-tɕʰi (INTR-V2b) to move
vkʰə (V2b) to be full
vtʰæ (V2b) to get a sickness
wele (V2b) to hang
wjə (V2b) to be hungry
zæle (V2b) to rotate
n-zærzær (VBLZ-N > V2b) to be beautifully clothed; cf. *zærzær* 'beautifully clothed'
zgəu (V2b) to stutter, stammer
zɣæ (V2b) 1. to open (mouth only, eyes etc. applicable) 2. to stare (possibly, but without necessarily opening the mouth in awe)
n-zjar-kʰo (?-N-V1a > V2b) to be sad, lit. 'to heart-cold'
zra (V2b) to be shy of
ʑæ ~ ʑe (V2b) 1. to come, 2. to rain, snow

H5. Class 3a

v-dæ (INV-V3a) to criticise, hit and scold
ndə (V3a) to stab
ntsʰərvæ (V3a) to scratch
ntsʰu (V3a) to point at
ntɕa (V3a) to make friends
v-ra (INV-V3a) 1. to hit, 2. light verb; see §4.3.7.1
rgu (V3a) to hit with a fist; syn. *rguə-lu* 'ibid.'
rguə-lu (V3a-HSUF > V3a) to hit with a fist; syn. *rgu* 'ibid.'
rtsʰo (V3a) to kick; syn. *rtsʰo-lu* 'ibid.'
rtɕʰæ (V3a) to bite
v-tʰəu (INV-V3a) to approach, get close
wʑele (V3a) to stroke
zdəu (V3a) to marry

H6. Class 3b

ą̂ɕə (V3b) to break (sticks)
ą̂la (V3b) to rent, hire; (N) salary; TL *gla* 'pay for work, wage, salary'
ą̂pi (V3b) to copy; (N) saying, metaphor; TL *dpe* 'copy, saying, metaphor'
z-bə (CAUS-V1b> V3b) to pile
z-bəla (CAUS-V1b > V3b) to make turbid
v-ɕʰa (INV-V3b) to take, snatch (often through illegal means)
v-ɕʰəu (INV-V3b) to herd (e.g. cows)
v-dæ (INV-V3b) to do
z-də (CAUS-V2b > V3b) to irrigate
v-ʥą̂ (INV-V3b) to saw (a log into blanks)
v-ʥą̂l (INV-V3b) to make noodles (in a rolling machine that cuts dough into noodle shape); TL, possibly *dril* 'roll, rounded thing, to roll down'
z-gæde (CAUS-V2b > V3b) to knock
v-gə (INV-V3b) to wear clothes (upper body)
v-ɣa (INV-V3b) to lift off (e.g. a lid)
z-ɣo~ɣo (VBLZ-[RED.ADJZ~V1a]$_{ADJ}$ >

V3b) to bend; cf. *rɣo~rɣo* 'bent'

v-jæ (INV-V3b) to cut (by pressing against a blade)

v-jə$_1$ (INV-V3b) to guard, have vigil

v-jə$_2$ (INV-V3b) to taste, sample (food)

ɲ-jɔpa (VBLZ-N > V3b) to spread with a spreader; cf. *jɔpa* 'spreader'

s-kə (CAUS-V1b >V3b) to conserve (e.g. food for future use)

s-ko (CAUS-V1a > V3b) to cool down (e.g. drinks and food); The corresponding expected aspiration grade **s-k^{h}o* is ungrammatical in Balang, yet reported by Duo'erji (1997: 286)

v-k^{h}ji (INV-V3b) to dry (clothes)

v-k^{h}uæ (INV-V3b) to cut (general)

lda (V3b) to cram in, squeeze in, push with force into something almost full (e.g. into a bag)

z-lə (CAUS-V1b > 3b) to boil

lŋæ (V3b) to pour (e.g. water into the sewer)

lp^{h}a (V3b) to spread open (bodies of slaughtered animals, especially pigs); possibly historically related to *p^{h}a* (N) half

lp^{h}æle (V3b) to put a patch (on clothes); (N) patch (on clothes)

lqa (V3b) 1. to open (e.g. the door) 2. to wear clothes with a zipper or buttons in an open fashion

ltəu (V3b) to fold (once, e.g. clothes); TL *ltab* 'to fold'

ltæ~ltu (V~RED > V3b) to fold (several times over, e.g. clothes

ltu (V3b) to wade (a river)

lt^{h}ja (V3b) to connect

ma (V3b) to spread with hands, typically on the skin (lotions)

mbərlən (V3b) to plane; (N) carpenter's plane TL *'bur len* 'carpenter's plane'

mbe (V3b) to carry (away from speaker), steal

mdzæ (V3b) to abstain from something (e.g. drinking alcohol); possibly TL *'dzem* 'to avoid, abstain, refrain from'

mdʐædʐə (V3b) to twist, bend

mdʐola (V3b) to wrap; *mdzo* not used independently as a verb in Balang, but *la* might be the historical repetitive suffix *-IV ~ -rV* (see §6.2.3.10)

s-mə (CAUS -V1b > V3b) to cook ready

mno (V3b) to leave things with someone (for a long time to be retrieved later)

mp^{h}æsle (V3b) to turn inside-out, upside-down, flip, reverse

mp^{h}riva (3b) to tie together into a shape resembling prayer beads

mqo$_1$ (V3b) to unintentionally have foreign substances entering the mouth (e.g. smoke or small particles carried by the wind) 2. to put into mouth things that should not be eaten, e.g. dirt from the ground (children)

mqo$_2$ (V3b) to wear clothes with no sleeves for the hands (e.g. monk robes), to wear clothes that have sleeves without putting one's hands into the sleeves

mto (V3b) to cut into pieces

mtsi (V3b) to sharpen

mts^{h}ə (V3b) to paint; (N) paint

mtɕ^{h}ə (V3b) to melt (e.g. butter and fat), to extract oil from meat

mtɕ^{h}ərq^{h}o (V3b) to tie a knot (used e.g. shoelaces); (N) knot

mts^{h}i (V3b) to walk, lead (a domestic animal)

mtsʰɔ (V3b) to sieve
nɕʰærwo (V3b) to put in order, tidy up, clean
nɕʰo (V3b) to set a fire, to light (e.g. firewood)
nɕʰɔ (V3b) to say back (e.g. children to their parents or to a person who first insults someone when fighting)
ndəl (V3b) to prepare by grinding (sniff)
ndzær (V3b) to nail; (N) nail
ndzə (V3b) to keep a secret
s-nə (CAUS-V1b > V3b) to light
nle (V3b) to knead by pressing against a surface
nlo (V3b) to drill; syn. *nlo-lə* 'ibid.'
nlo-lə (V3b-HSUF > V3b) to drill; syn. *nlo* 'ibid.'; also used for 'to feel about (e.g. when looking for a thing), to finger, fumble' in which case *nlo* cannot be used
nlolə (V3b) to feel about (e.g. when looking for a thing), to finger, fumble
nsʰəsʰo (V3b) to swipe the ground, floor (rare, *zrəzræ və* (V3b) 'to swipe with a broom'and *zrə* (V3b) 'ibid.' more common)
ntʰə (V3b) to hit (one's head into sth)
ntʰɔ (V3b) to weave (e.g. baskets from bamboo), embroider; TL *'thag* 'to knit, weave'
ntʰje (V3b) 1. to hear 2. understand (e.g. a certain language)
ntsʰætsʰæ (V3b) to ponder, try
ntsʰə (V3b) to think
ntɕə (V3b) to slaughter, butcher (of animals; not used of people even metaphorically)
ntɕʰəzɣe (3b) to move, relocate things in a house; applies only to many items and not individual pieces when the moving takes place inside the house from a room into another and not from the house to another place
ntɕʰo (V3b) to have, own, possess
ntɕʰua (V3b) to step on
nwatɕə (V3b) to play; (N) playing
nzærzə (V3b) to save, economise (e.g. money, food, or in terms of clothes by using them for a long time)
nʑæla (V3b) to plaster
nʑə (V3b) to warm oneself (by the fire)
nʑəu$_1$ (V3b) to climb (e.g. trees)
nʑəu$_2$ (V3b) to carry (e.g. knives, axes, swords) in the belt, carry items by sticking them partly inside the trousers
ŋʈʐə (V3b) to distribute, hand out (done e.g. by leaders and reincarnated masters)
ŋʂʈʰæ (V3b) to milk, pull
ŋkaka (V3b) to chew (soft food, e.g. bread)
ŋkæræ (V3b) to saw; (N) saw
ŋkʰærlo (V3b) to use the sheller machine; (N) corn sheller, shelling machine, wheel
ŋkʰuma (V3b) to lock; (N) key
nvæ (V3b) to hold in one's possession (e.g. a field), occupy
nwə (V3b) to roast (meat), bake by fire
ŋxa (V3b) to steam (cooking method)
pær (V3b) to print, copy (e.g. with ink and an engraved wood block); TL *par* 'to print, carve wood blocks'
pja (V3b) to cut (wood)
præ (3b) to break (strings)
prə (3b) to break (fabric and clothes)
pʰæ (V3b) to spit out (phlegm and saliva out from the mouth)
pʰrə (V3b) to explain
pʰrəu (V3b) to leash, fasten (an animal, not commonly used of people)
m-pʰrəu (AB-V3b > V3b) to wear (shoes)
pʰu (V3b) to set up (a tent)

v-qe (INV-V3b) 1. to drive, herd (animals), to take with (animals) 2. to take and drive (the car)

v-qɔ (V3b) to tear off (e.g. an old concrete roof), to cut stone into slabs

v-qrə (INV-V3b) to break (e.g. cups, plates)

v-qua (INV-V3b) to dig

v-q^{h}ri (V3b) to cut into pieces (meat), to cut cloth

v-ræ (INV-V3b) to write

rdʑəu (V3b) to divine

v-rə$_{1}$ (INV-V3b) to buy

v-rə$_{2}$ (INV-V3b) light verb used with ideophones

v-rəu (INV-V3b) to sew

ryi (V3b) to thread (the needle)

rjæ (V3b) to ask

rkə (V3b) to steal; TL *rku* 'ibid.'

rku (V3b) to carve, engrave (e.g. letters to a piece of wood); TL *rko* 'ibid'

rŋa (V3b) to hunt

rŋi (V3b) to borrow

rŋu (V3b) to stir, fry; TL *rngo* 'to stir, fry'

rqe (V3b) to gnaw, chew (hard food, e.g. bones);

rqæ-le (V3b-FREQ > V3b) to gnaw, chew (hard food, e.g. bones)

rtsənt^{h}əu (V3b) to cut with scissors

rtsi (V3b) to count, calculate, divine; TL *rtsis* 'ibid.'

v-ru (INV-V3b) to pour

skær (V3b) 1. to tie around (e.g. a muffler, scarf around the neck); 2. to use, spread open the umbrella

sle (V3b) 1. to reach (a place) 2. to bring; not commonly used in Balang, but can be heard in more western villages of Eastern Geshiza Valley

slu (V3b) to release accidentally (e.g. to defecate or urinate accidentally in one's pants)

smərji (V3b) to stir (e.g. noodles)

smu (V3b) to row (boats)

snə (V3b) to dare

snə-no (N-V1b > V3b) to smell (explorative perception); *sni* 'nose'; *no* (V1b) 'to smell' (opportunistic perception)

sŋi (V3b) 1. to listen 2. to obey

spə (3b) to burn (primarily used for oil and gasoline only; e.g. a car, but also human subjects)

spə-rjæ (V3b-? > V3b) to burn (e.g. trash)

spjælɔ (V3b) to use (e.g. money or other assets); TL *spyad lag* 'goods, provisions, articles'

spji ~ stɕi (V3b) to sweep, polish

sp^{h}jæ (V3b) to finish building a house

sp^{h}orq^{h}a (V3b) to shake (e.g. dusty clothes to remove the dust)

sp^{h}ro (V3b) to sprinkle (seeds)

sqə (V3b) to sprain (one's ankle, elbow)

sqɔ (V3b) to close the door with a small bolt from the inside; *yæ-**sqɔ*** (N-N) small wooden door bolt inside individual rooms

squə (V3b) to rest when sick, to take care of one's health after illness

sq^{h}lɔ (V3b) to swallow

sq^{h}u (V3b) to set up (e.g. a tent)

sti (V3b) to put, place, leave

st^{h}æ (V3b) to be finished with something, to finish something

st^{h}ə (V3b) to squeeze

st^{h}i (V3b) to spread (a sickness, such as cold, for others)

st^{h}jəu (V3b) to insert, stick in

s^{h}ji (V3b) to plough

v-tə (INV-V3b) to dance

v-tʰa (INV-V3b) to attach, join

n-tʰa (AB-V3b > V3b) to wear (accessories)

v-tʰæ$_1$ (INV-V3b) to extract (e.g. metals from stone mass)

n-tʰæ (AB-V3b > V3b) to withdraw, take out (money from the bank)

v-tʰæ$_2$ (INV-V3b) 1. to reach (a place) 2. to bring

v-tʰæ$_3$ (INV-V3b) to make an effort (used together with *ɕʰæmu* 'effort'

n-tʰæpʰæ (AB-V4 > V3b) to snatch, take out (for oneself)

s-tʰə~tʰə (VBLZ-[RED.ADJZ~V1a]$_{ADJ}$ > V3b) to straighten (e.g. iron bars); cf. *ltʰə~tʰə* 'straight'

v-tʰi (INV-V3b) to drink

v-tʰo (INV-V3b) 1. to build (houses), 2. to light (fire), 3. to pull (noodles)

m-tsæ (APPL-V1a > V3b) to warm, heat (food) (see §6.2.3.8 for the causative-like use of the applicative prefix)

v-tɕe (INV-V3b) to castrate (domestic animals)

v-tɕe (INV-V3b) to wear (hat, headgear); (N) *tɕe* 'hat'

v-tɕi (INV-V3b) to ride (e.g. a horse), sit astride (i.e. with a leg on each side of an object)

s-tɕʰi (CAUS-V2b > V3b) to move

v-tɕʰi$_1$ (INV-V3b) to open, unlock

v-tɕʰi$_2$ (INV-V3b) to make a hole

vɕæ (V3b) to tell, speak, say: TL *bshad* 'spoke'

sʰ-uele (CAUS-V2b > V3b) to hang

və (3b ~ V4) 1. to do 2. light verb; see §7.3.7 for a discussion on the required argument indexation pattern in light verb use

n-və (AB-V3b > V3b) to celebrate (e.g. an event)

vʑan (V3b) to sculpt (used primarily of Buddha images, but also of secular statues); TL, likely *bzhin* 'likeness, image, face, *mukha*; less likely *bzhen* 'to erect'

vro (V3b) to block, close (e.g. a place or a road by the police)

vsɔ (V3b) to accumulate (e.g. grain, money); TL *bsag* 'accumulated, gathered, hoarded'

vɕu (V3b) to spend excessively, waste (e.g. money), behave extravagantly

vtsɔ ~ vtsʰɔ (V3b) to filter (e.g. tea); TL *bstags*? 'to filter' (form shows variation in terms of aspiration in Geshiza)

vtsu (V3b) to found, establish; TL *btsugs* 'established, set up'

vtɕa (V3b) to make or create something out of thick and malleable material (e.g. clay, dough)

vzə (V3b) to fix, repair, mend, make; TL *bzos* 'made, created, manufactured'

vʑær (V3b) to shave (beard, hair); TL *bzhar* 'shaved'

wɕu (V3b) pick up, to put into order, tidy up

wdʑo (V3b) to grind (flour); syn. *wdʑo-lo* 'ibid.'; (N) 'flour'

wdʑo-lo (V3b-HSUF >V3b) to grind (flour); syn. *wdʑo* 'ibid.'

wmə (V3b) to blow

wnæ-n-tsəu (N-AB-V > V3b) to warm oneself in the Sun; cf. *wnæ* '(sun-)light'

wrələ (V3b) to apply boiled water (e.g. to remove the hair of a slaughtered animal); conversion of the compound *wrə-lə* (N-V) boiled water, hot water

wrə$_1$ (V3b) to imagine, think (mistakenly)
wro$_2$ (V3b) to scare away wild animals by making a loud noise
ws^{h}ə (V3b) to prepare (e.g. food and drinks for visitors)
wts^{h}æts^{h}æ (V3b) to offer (e.g. money)
wʑælæ (V3b) to peel; cf. *dʑæ-læ* (N-HSUF) 'skin', *n-dʑælæ* (VBLZ-N > V1b) to peel off (INTR, old skin)
wʑi (V3b) to stretch out (hand)
v-xuə (INV-V3b) to wear (shoes and socks)
zbəu (3b) to soak (in water, e.g. when washing clothes)
zbri (V3b) to play (wind instruments)
zde (V3b) to play (wind instruments)
zdi (V3b) to pile up in layers; (N) (stone) wall
zdjəu (V3b) to shaft (i.e. press the shaft, haft, or handle into a tool: e.g. the haft into an axe head with a hole); cf. *st^{h}jəu* (V3b) to insert, stick in
zdʑər (3b) to change; TL *sgyur* 'to change, transform'
zdʑo (V3b) to study; likely TL *sbyong* 'ibid.'
n-zəva (VBLZ-N > V3b) to perform the *zəva*-ritual (see §2.7.1; *a̱ɕ^{h}ə spirits; Appendix II: Culture-specific lexicon*)
zga (V3b) to saddle; (N) saddle; TL *sga* 'saddle'
zgə (V3b) to collect firewood
zgru (V3b) to recite scripture, Tibetan sutras
zɣe (V3b) to boil (in water inside a container), cook (by boiling)
zja (V3b) to comb (N) comb
zjə (V3b) to sell
n-zjə (AB-V3b > V3b) to sell (e.g. for one's livelihood)
zla (V3b) to sing, recite; likely TL *zlo* 'to repeat, recite'
zla-la (V3b-FREQ > V3b) to chant (e.g. religious scripture)
zlæra (V3b) to thresh grain by throwing it into the air (hist.)
zli$_1$ (V3b) to bolt (doors, gates); (N) (door) bolt
zli$_2$ (V3b) to look after (children; cannot be used of animals)
zrə (V3b) to sweep with a broom
zuə (V3b) to measure (e.g. cereals)
zvæ (V3b) to spread out (e.g. the fertiliser on the field)
zvær (V3b) to light, kindle; TL *spar* 'ibid.'
n-ʑæ (APPL-V2b > V3b) to bring (towards the speaker); (see §6.2.3.8 for the causative-like use of the applicative prefix)
v-ʑə (INV-V3b) to plant; (N) *ʑə* 'field'

H7. Class 4

a̱bæle (V4) to hit with a club; (N) club
a̱mo-t^{h}əu (N-V? > V4) to convey a message; cf. *a̱mo* 'mouth'
a̱su (V4) to bring up, take care of (children), raise; TL *gso* 'to raise, sustain'
z-bət^{h}a (VBLZ-N >V4) to hit with a stick; syn. *z-bi* 'ibid.'; cf. *bət^{h}a* 'stick, stick-like long object'
z-bi (VBLZ-N > V4) to whip, spank, hit with a stick; syn. *z-bət^{h}a* 'ibid.'; cf. *bi* 'stick, stick-like long object'
ɕua (V4) to search, look for
v-ɕ^{h}i (INV-V4) to fetch, take someone somewhere
z-gə$_1$ (CAUS-V3b > V4) to dress someone

z-gə$_2$ (CAUS V2b > V4) to tell somebody to sleep

z-græl (CAUS-V2b > V4) to assign, lay out (things)

z-ɣo (CAUS-V2b > V4) to ask for help, to reqruit

ŋ-ɣuə-ltə (?-N-V4 > V4) to hit head against; *ɣuə* 'head'; *ltə* 'to hit, collide'

s^{h}-ji (CAUS-V2b > V4) to wake someone up, to pull someone up (e.g. a person who has stumbled)

s-kærkær (VBLZ-N > V4) to go around, take a roundabout way; cf. *kærkær* 'circle, round'

s-k^{h}ær (CAUS-V2b > V4) to make somebody return, send back (things)

v-k^{h}o (INV-V4) to give; see §4.3.3.4 for paradigmatic irregularity in the verb

v-k^{h}rə (INV-V4) to hold, grasp, catch, arrest

v-læ (INV-V4) 1. to let 2. to release, unleash 3. to apply, 4. to give, hand (e.g. cigarettes), 4. light verb; see §4.3.7.1.

s-le (CAUS-V2b > V4) to fell, make fall

lji (V4) to wait

lmə (V4) to forget

ltə (V4) to hit, collide

lua (V4) to hug, embrace

lva (V4) to carry on shoulders; (N) shoulder

s-mæmæ (CAUS-V2b > V4) to make cry

s-mæmu (CAUS-V2b > V4) to move, make move (no change in the location, e.g. pushing someone and causing their body to move)

mbarji (V4) to step over (e.g. someone lying on the ground)

mbərts^{h}ə (V4) to push

mbəva (V4) to piggyback (especially parents of their children)

z-bəva (CAUS-V4 > V4) to piggyback (especially parents of their children)

mdzæ (V4) to dedicate, set apart, allot for something

mdʑəska (V4) to watch (e.g. an event)

mə (V4) to feed babies or animals

mp^{h}æ (V4) to lose something or someone (e.g. in a crowd)

mts^{h}ərja (V4) to drag, tow

mtɕ^{h}æ (V4) to offer, give an offering; (N) offering; TL *mchod* 'offering, to give an offering'

mtɕ^{h}æk^{h}uə (V4) to carry under one's armpit; cf. *mtɕ^{h}æk^{h}uə-t^{h}əu* (V?-N) 'armpit', *mtɕ^{h}æk^{h}uə-vəu* (V?-N) 'armpit'

mtɕ^{h}ək^{h}i (V4) 1. to watch, look at 2. look after (e.g. children); syn. *stɕ^{h}ək^{h}i* 'ibid.'

ɳʈʂælvæ (V4) to claw; syn. *wʈʂælvæ* 'ibid.'

nt^{h}ji (V4) to choose, select

nts^{h}e (V4) 1.to act, perform the role of; 2. to copy, imitate someone

nzli (V4) to dream

ŋgə (V4) to eat

s-ŋi (CAUS-V2b > V4) to lend

ŋk^{h}uə (V4) to put, place (inside a container)

ɴq^{h}lə (V4) to fetch someone (rare and archaic in Eastern Geshiza), mostly used in the specific sense 'to fetch the bride from her home upon wedding'

s-pær~pær (VBLZ-[RED.ADJZ~V1a]$_{ADJ}$ > V4) to crush (e.g. an insect under one's feet); cf. *pær~pær* 'flat'

p^{h}æ v-tɕ^{h}o (? INV-V4) to separate; also used in the extended sens 'to analyse'

p^{h}əu (V4) to take down; TL *phab* 'cause to fall, bring down'

p^{h}jo (V4b) to see off, also used as the verb for funerals, a ritual of seeing off the deceased

s-pʰrəu (CAUS-V3b > V4) to tie

ɴ-qʰæqʰæ (APPL-V2b > V4) to laugh at someone, scorn or ridicule someone with laughing

s-qʰæqʰæ (CAUS-V2b > V4) to make someone laugh

v-qʰi (INV-V4) to hate

ryi (V4) to wash

v-ri (INV-V4) to find

z-ri (CAUS-V2b > V4) to leave (e.g. food)

rtsʰo-lu (V3a-HSUF >4?) to kick; syn. *rtsʰo* 'ibid'; usually the historical repetitive suffix *-IV ~ -rV* (see §6.2.3.10) does not alter the derivation's verb class, but *rtsʰo-lu* seems to be an exception

rtɕʰe (V4) to tie (someone or something together), to bundle up

rtɕʰe-qʰo (V3b-? > V4) to tie (e.g. hands of an arrested criminal); syn. *rtɕʰeqʰue* 'ibid.'

rtɕʰe-qʰue (V3b-? > V4) to tie (e.g. hands of an arrested criminal); syn. *rtɕʰe-qʰo* 'ibid.'

v-se (INV-V4) to know

vsəu (V4) to resemble, seem

skræ (v4) to give a dowry, to divide the family property; (N) dowry, family property division

skʰo (V4) to give for someone to have in their possession, to make someone have something

slə (V4) to take in (e.g. a new member to a team, a new person to share the food)

smær (V4) to like, love, prefer

s-præ (CAUS-V2b > V4) to put things together, to put a boy and a girl together for marriage (as a go-between in the past)

stʰæla (V4) to hold in one's arms

stɕʰə (V4) to show

stɕʰə (V4) to fine

stɕʰætɕʰæ (V4) to pursue (e.g. an escaping person)

stɕʰəkʰi (V4) 1. to watch, look at 2. look after (e.g. children); syn. *mtɕʰəkʰi* 'ibid.'

stɕʰətɕʰə (V4) to weigh

v-sʰæ (INV-V4) to kill

v-sʰæle (INV-V4) to rotate

v-tʰæ (V4) to split (into two)

v-tʰæ-pʰæ 1. (INV-V3b-? > INV-V4) to take out from a closed space; 2. to take off clothes, undress (in which case used as 3b)

s-tʰi (CAUS-V3b > V4) to make somebody drink, to give something for someone to drink

v-tʰo (INV-V4) to catch (e.g. a falling child)

s-tʰoʑə (CAUS-† > V3b) to mix

v-tsa (INV-V4) to drop

s-tɕi (CAUS V3b > V4) to le, make ride (e.g. a horse)

s-tɕutɕu (CAUS-V2b > V4) to gather

v-tɕʰævsʰə (INV-V4) to make roll

v-tɕʰə (INV-V4) to lift

vdo (V4) to see

vdzi-ɴqʰi (N-†V > V4) to bully; *vdzi* 'person'

vtəl (V4) to subdue, vanquish, tame (used mostly of heroes destroying ogres and ogresses in traditional stories); TL *btul* 'conquered, subdued'

v-zəu (INV-V4) to press (someone or something, e.g. a button)

vzəzəu (V4) to massage (e.g. sore muscles)

wɕʰo (V4) to send (things, people)

wɲo (V4) to walk behind, follow behind; see §6.2.3.4 for vestiges of the *w-* causative

prefix with a verbalising function; cf. *ɲo* 'after'

ws^{h}i (V4) to strangle

wʈʂælvæ (V4) to claw; syn. *ŋʈʂælvæ* 'ibid.'

wzo (V4) 1. to plant trees 2. to make sit

s-xuə (CAUS-V3b > V4) to put shoes on somebody

zbjær (V4) to affix, to put next to something

zbrɔ (V4) to retrun a borrowed item; TL *sbrag* 'to give, deliver, bring'

zgəu (V4) to cover

zgo (V4) to hide

zgru (V4) to assign (a person for a task)

zji (V4) to teach

n-ʐæ (APPL-V2b > V4) to give birth; (see §6.2.3.4 for the causative-like use of the applicative prefix)

nʐa (V4) to lick; possibly a historical verbalisation of *vʐæ* 'tongue'

nʐa-la (V4-FREQ > V4) to lick

v-ʐə (V4) to report (e.g. of someone or something to the officials); TL *zhu* 'to tell, say, report'

ʐua (V4) to throw, discard

APPENDIX II
Culture-specific lexicon

This appendix briefly introduces the meanings of culture-specific Geshiza terms. While some of these terms are discussed in chapter two, *Ecological Context of Geshiza*, others appear in the grammatical description and could otherwise be difficult to understand, especially without prior knowledge about cultures in Eastern Tibetosphere. The intention is not to give an exhaustive list of central cultural lexicon, but to merely facilitate the perusal of the grammar. The alphabetical ordering follows that of *Appendix I: Geshiza-English thematic glossary.* When established with fair certainty, origins of the terms are given at the end of the entries.

ą̂ɕʰə (N) — Serpent-like spirits: manifest as frogs and snakes, revered by the Geshiza through the *zəva* ritual performed by women in the morning in the warm season; when one accidentally meets a snake or a frog, it is pacified by taking a fistful of dirt into one's hand and gently sprinkling it towards the snake while reciting the *o zəva* spell

ą̂den (N, V1b) — Transmission of sickness from a dead person to a living one that can be diagnosed by a *rtsipa* (see below) and healed through the *ą̂to* ritual (see below)
likely a Tibetan loanword, exact source unclear

ą̂joŋʤ̣oŋ (N) — Sauwastika (卍): 'Left-facing' swastika sign used as a prominent symbol in the Bön sect followed by the Geshiza and as a decorative motive
Tib. *g.yung drung* 'changeless, everlasting, sauwastika'

ækə wæle (N N) — Uncle rabbit, a clever rabbit appearing in joke stories in the past, but now mostly forgotten among eastern Geshiza

ą̂næmgo (N) — New Year's Eve; considered the most auspicious day of the year
Tib. *gnam gong* 'ibid.'

ą̂næn- (N, BM) — Type of spiritual beings that among the Geshiza manifests in two forms *ąnæn-sʰi* 'gnyan tree' and *ąnæn-rgævæ* 'gnyan stone', both of which should not be disturbed
Tib. *gnyan* 'lord of trees, type of spiritual being commonly associated with threes'; cf. also *gnyan po, gnyan pa* 'sacred'

ạpən (N) Chief, leader: in the historical context, refers to local landlords under the *tusi* system who ruled the *ɲjɔ* 'serfs'; cf. *rdʑælpə*
Tib. *dpon* 'chief, leader'

ạto (N) Tibetan scripture recital ritual accompanied by rhythmic drumming and performed by *ạvæl*
Tib. *gto* 'exorcise ritual'

ạvæl (N) Lay specialist with knowledge of Tibetan who in addition to monks perform religious rituals, e.g. *ạto*, especially in Bön, but also in Tibetan Buddhism of the Geshiza homeland

bændi (N) All schools of Tibetan Buddhism, in contrast to the Bön religion; in practice, frequently refers to the regionally important Yellow Hat school (Tib. *dge lugs pa*) of Tibetan Buddhism

bær-ko (N-SUFF) Middle room: name of a room on the second floor of a Geshiza house
Tib. *bar* 'middle, between'

bəmdʑər-pʰru dəu~dəu (N-V RED.ADJZ~ADJ) Name for a period of *pʰru* 'white' days at the beginning of the eleventh lunar month
Lit. 'small white *bəmdʑər*'; *bəmdʑər* being a Tibetan loanword *'bum 'gyur* 'month name', lit. 'to become into 100,000'; reflects a Tibetan belief that chanting the mantra *oM ma Ni pad+me hU~M'* during this month equals 100,000 times of chanting during other months (G.yu 'brug and Stuart 2012: 122)

bəmdʑər-pʰru gæ-tɕʰæ V ADJZ-V) Name for a period of *pʰru* 'white' days at the beginning of the (N-twelfth lunar month
lit. 'big white *bəmdʑər'*; see *bəmdʑər-pʰru dəu~dəu*

bəmbə (N) Bönpo: practitioner of the Bön religion
Tib. *bon po* 'ibid.'

brɔsən (N) Light spirit: spirit moving on mountain slopes in the form of light at night

ɕʰæŋʈʂi (N) Demons, evil spirits: spiritual beings active especially during night time that can occasionally be heard but not seen; also known as *ŋʈʂi* 'ibid'
Tib. *lha 'dre* 'gods and demons'

dzi-ɕʰe (N-N?) Food offering: part of the meal left for the ancestors in the *we-lməu* room (see below)

dʑy(w)æ-tɕe (N-N) Fox-fur hat: traditional Tibetan hat that can still occasionally be seen among the Geshiza during festivities

gæ-ndʑu (ADJZ-V) Extraordinary (in a religious sense, such as a *skəʑə*): attribute to mortal people distinct from *mdʑurten-me* by the ability to perform miracles due to supernatural powers

ɣəju (N) Account book: notebook into which the Geshiza record the quantity and kind of received gifts in Chinese as a memory aid for the occasion of reciprocating; also called simply *dʑədə* 'book'

jo-lmə (N-N) House name: Geshiza equivalent of a family name typically associated with the building one lives in; alternative pronunciation alternative for *we-lmə;* see also *lmə*

k^{h}ædær (N) Ceremonial scarf: traditional Tibetan scarf presented by placing around the neck of the recipient on various occasions, e.g. weddings and departures of guests
Tib. *kha btags* 'ceremonial scarf'

k^{h}æ-vq^{h}i (N?-V) Curse due to negligence or improper dealings with the *a̠ɕ^{h}ə* spirits, e.g. by building a house to an improper place or on improper dates, resulting in sickness that cannot be healed through conventional medicine, but only through conducting *a̠to* or *zəva* rituals

k^{h}e (N) Type of bread: Geshiza staple food together with rice and noodles, present in various forms traditionally made of corn flour and now of wheat flour

k^{h}osær (N) Traditional oral artform typically performed in weddings; includes archaic vocabulary and Tibetan loanwords; close to extinct in eastern Geshiza Valley

læsær (N) Tibetan New Year; see also *losær*
Tib. *lo gsar* 'ibid.'

læsær-ɲa (N-V) Name for a period of *ɲa* 'black' days at the end of the twelfth lunar month preceding the Tibetan New Year

læsær-p^{h}u (N-V) Name for a period of *p^{h}ru* 'white' days at the beginning of the first lunar month during the Tibetan New Year time

le (N) Karma, karmic connection in the extended sense
Tib. *las* 'ibid.'

lmə (N) (Personal) name; see also *jo-lmə, we-lmə*

losær (N) Tibetan New Year; alternative for *læsær*
Tib. *lo gsar* 'ibid.'

lubji (N) 'Yeti': ferocious and powerful ape-like monster with many human qualities that inhabits the highest mountains where it captures passing people and eats them after sunset

mæne-rgæ-væ (N-N-HSUF) Mani stone: Stone with engraved mantras, usually the Tibetan Buddhist *oM ma Ni pad+me hU~M'*; technically stones with the engraved Bön mantra *oM ma tri mu ye sa le 'du* are excluded from the category of *mæne-rgæ-væ*, but literacy of the Tibetan script is low among the speakers of Eastern Geshiza; for the sake of accuracy, the term 'mantra stone' is used here for all stones with engraved mantras
Tib. *ma ni* 'ma ni, the mantra of *oM ma Ni pad+me hU~M'*'

mæne-xui (N-N) Tibetan Buddhist mani prayer recital: religious meeting performed by monks organised once in a year
Tib. *ma ni* 'mani, the mantra *oM ma Ni pad+me hU~M'*', with Ch. *huì* 会 'meeting'

mærtə (N) Mountain deity *mu rdo,* holy mountain *mu rdo*; mountain north-east from Danba County Town considered the principal mountain deity of the Gyalrong area
Tib. *mu rdo* 'stone of the evil demon', other etymologies also possible'

mær-tɕ^{h}oŋ (N-N) Alcoholic drink with butter: drink consumed on festive occasions, nowadays generally prepared by mixing strong purchased alcohol with slices of butter added in

mbəzli (N) Ritual tripod: tripod installed in the *we-lməu* room (see below) in Geshiza houses
possibly related to the word *wmə* 'fire'

mdʑurten-me (N-SUFF) Commoners, lay people, ordinary mortal people in contrast to bodhisattvas, reincarnated masters, other high-ranking religious figures and immortal entities
Tib *'jig rten* 'worldly, mortal, ordinary' with the Geshiza suffix *-me*, cf. Tib. *'jig rten pa* 'ordinary person, worldly person, not ordained, lay person', which shows that the Tibetan suffix *pa* has been replaced by *-me* in the Geshiza loan; also pronounced as *ndʑurten-me*

meloŋ (N) Small mirror-like circular disc with the twelve animals of the Tibetan zodiac engraved, worn as hanging from the belt my men among the Geshiza
Tib. *me long* lit. 'mirror'

məka (N) Shame: avoidance of shame constitutes one of the bases of the Geshiza culture controlling individuals' behaviour

mkʰær (N) Stone tower: tall watchtower-like constructions present in Danba County the original functions of which remain under debate
Tib. *mkhar* 'tower, fort, citadel'

mkʰær-tso (N-?) Highest room on the top of Geshiza houses on top of which lies the *vsaŋkʰaŋ* 'incense burner' used for worshiping the mountain deities
mkʰær from Tib. *mkhar* 'tower', *tso* origin unclear

mpʰri-va (N-HSUF) Prayer beads: Tibetan Buddhist and Bön religious tool containing 108 beads used to count the number of performed mantra recitations
From *mpʰri* 'snake' and *-va* 'historical suffix' due to perceived similarity in shape

mtɕʰær-ko (V-NMLZ) Altar room, worship place: room on the third floor of Geshiza houses functioning as the locus of Bön and Buddhist deity and bodhisattva worship

Tib. *mchod* 'offering, to offer, worship' with the Geshiza locative suffix *-ko* 'place'

mtɕʰærten (N) Stupa: reliquary mound in Bön and Tibetan Buddhism typically at the edges of Geshiza villages and subject to circumambulation
Tib. *mchod rten* 'stupa'

næpa (N) Grudge by the spirits dead people who haunt and take revenge on the living by causing sickness or in the folklore, also by hunting; cured by *a̠to* (see above)
Tib. *gnod pa* 'harm', other sources also possible

ndʑæ (N) Dāna, (religiously motivated) gift that takes various forms and is given, for instance, on certain festive occasions and upon a person's death

noŋpa (N) Person of the affected side during a special event, e.g. the relatives of a deceased person when preparing a funeral

Tib. *nang pa* ‘insider, Buddhist’

ɳɕʰɔ~ɕʰɔ (RED~V2b) To perform jokes in pairs on special events as a traditional form of entertainment
Reduplication of *ɳɕʰɔ* (V3b) ‘to say back’ (due to the mutual nature of the action)

ɲa (V) ‘Black’ days in the Geshiza version of the Tibetan calendar, contrast with *pʰɾu* ‘white’ days

ɲjɔ (N) Serf, servant: commoners under the political system prior to the Geshiza homeland’s incorporation to the PRC; also used as an expletive when cursing people and animals
Tib. *g.yog* ‘servant’

ŋʈʐolu (N) Way of life: culturally customary and proper way of doing things in a given community, such as among the Geshiza
Tib. *'gro lugs* ’way of walking, way of life, customs’

ŋgræl-me (V-NMLZ) On the wedding day, people selected by the bride’s side to see the bride off on her way to a new home at the groom’s; opposite of *skʰəɾe-me*

ŋkʰærlo (N) Prayer wheel: cylindrical wheel containing wrapped mantras used mostly by elders in the Geshiza society for gaining merit
Tib. *'khor lo* ‘wheel, cylinder’

o zəva (INTERJ N) Geshiza mantra or spell accompanied by water sprinkling addressed to the *ʑɕʰə* spirits (see above)

pare (N) Rectangular-shaped traditional ladies’ headdress still in frequent use among the Geshiza

patsə (N) Open space: e.g. a public square of a village where people gather during the festivities or the inner yard of a house
local Sichuanese Mandarin *bàzǐ* (standard pinyin used) 坝子 ‘open space’ ; see also *ʂətʂʰan*

pʰombo-wa (N-APUD) Grave(yard): Designated burial ground outside villages where the remains of deceased are buried; some individual graves resemble small stupas and have a space for butter lamp burning that takes place on *tsong kha pa* Memorial Festival, Tibetan New Year, and the (Chinese) Tomb Sweeping Day

pʰɾu (N) ‘White’ days in the Geshiza version of the Tibetan calendar, contrasting with *ɲa* ‘black’ days

qo (N) — Plough: traditional wooden plough with an iron blade and pulled by oxen in the past, replaced by tractors

ræ-me (V-NMLZ) — Scribe: a person with advanced skills in writing in Chinese assigned to write down the kind and quantity of funeral gifts brought by the guests; works together with a *st^{h}a-me*

rævəu (N) — Barn: typically half-underground space in a Geshiza house for keeping domestic animals partially separate from people

rdʑælpə (N) — King, chieftain, *tusi* (土司) in the *tusi* system, a local ruler who used by Qing authorities to control the empire's borderlands indirectly; also evolved a use as 'rich person'; smaller local rulers, such as the landlord of Geshiza called *ʑapən*
Tib. *rgyal po* 'king, chieftain, ruler'

rdʑdæ-t^{h}əu-wa (N-N-APUD) — 'Chinese kitchen': a modern kitchen where cooking now takes place, contrasts with *we-lməu* that has evolved into a ritual and recreational space
lit. '(space around the) Chinese stove'

rgelu (N) — Newest school of Tibetan Buddhism founded by *tsong kha pa* and strongly present in the Geshiza homeland through a monastery in Buke Village
Tib. *dge lugs* 'ibid.'; followers of the school are called *rgelupa* (Geshiza) and *dge lugs pa* (Tibetan)

rirəu (N) — Holy mountain, mountain deity; one of the deities revered by the Geshiza
possible link with Tib. *ri rab* 'mount Sumeru, supreme mountain'

ristæ (N) — Holy Mountain Festival for visiting the holy mountains in the fifth lunar month

(rjəu)-rjæ-ɕə-me [N]-V-V-NMLZ — Marriage intermediary; a male relative of a male who acted as a go-between in asking a woman's hand on behalf of the suitor in the past when most marriages were arranged; the role has become obsolete in contemporary Geshiza society
Lit. Ge. '(wife)-ask-goer'

rlonrta (N) — Prayer flag: colourful rectangular flags used by both followers of Tibetan Buddhism and Bön among the Geshiza
Tib. *rlung rta*, lit. 'wind horse'

roŋdʑoŋ (N) — Self-occurring, self-arising: pattern resembling a religious

symbol perceived to have formed by itself, e.g. on the face of a rock
Tib. *rang byung* 'self-occurring, self-arising'

rtsipa (N) Diviner-astrologer whose services are used e.g. when giving newly-born children names and diagnosing supernatural causes of sicknesses
Tib. *rtsis pa* diviner, soothsayer, astrologer'

ruloŋ (N) Tibetan zombie: risen corpse inhabited by a spiritual being unable to speak and bend, in the Geshiza tradition revived e.g. as a result of being touched by a cat during the vigil of a deceased person; corresponds to *vetāla* spirits that has been adapted from Indian to Tibetan culture (Walter 2004: 27-30), although indigenous origins predating this and later intermingling with the *vetāla* have also been posited
Tib. *ro langs* 'risen corpse',

rŋæmtɕʰæ (N) *tsong kha pa* Memorial Festival celebrated on the 25th day of the 10th lunar month by followers of Tibetan Buddhism and Bön by lighting carved turnip butter lamps on rooftops in the evening
Tib. *lnga mchod*, an abbreviation of *dga' ldan lnga mchod* '*dga' ldan* Offering of the [Twenty]-Fifth'

rŋæmtɕʰæ-ɲa (N-V) Special name for a period of *ɲa* 'black' days at the end of the tenth lunar month, named after *rŋæmtɕʰæ*, the major festival in the tenth lunar month

skærva (N) Pilgrimage, circumambulation: act of visiting a holy site usually accompanied by walking in circles around it, practiced by both followers of Bön and Tibetan Buddhism
Tib. *skor ba* 'to circumambulate, circumambulation'

skəʑɔ (N) Reincarnated master, *sprul sku*: lamas considered reincarnations of their predecessors in Tibetan Buddhism and often seen as capable of performing miracles
Tib. *sku zhabs* 'your lordship'

skræ (N, V4) Division of property, to divide property: Geshiza intergenerational and interfamilial tradition concerning transfer of property in the form of objects and money, given to women on the occasion of child birth by the bride's family and to men on the occasion of moving out from the native home by the father

skʰəre-me (V-NMLZ) — On the wedding day, people selected by the groom's side to receive the arriving bride
lit.' shouters'; opposite of *ŋgræl-me*

smənlæn (N) — *smon lam*: a pan-Tibetan Prayer Festival taking place in the first lunar month after the New Year
Tib. *smon lam* 'supplication, wish, prayer'

somtɕæ (N) — Juniper incense: branches of juniper typically burned on *mkʰær-tso* on the rooftop to invoke the protection of the mountain deity

srəmbo (N) — Ogress: anthropophagous monster with hanging breasts, dishevelled hair, and fierce appearance; according to oral tradition existed in Geshiza Valley in the past; female counterpart of *vdə*
Tib. *srin po* 'male ogre', cf. *srin mo* 'ogress'

stʰa-me (V-NMLZ) — Gift collector: person who receives the funeral gifts brought by the guests; works together with *ræ-me*

sʰævdɔ (N) — Holy Mountain Sacrifice, series of sacrifices for holy mountains organised in the spring; G.yu 'brug and Stuart (2012: 111) reports that a corresponding religious event is held the close-by Shuizi Township for earth-owner and a similar explanation is also given among the Geshiza, yet some individuals also connect *sʰævdɔ* with the mountain spirits, which highlights a strong conceptual link between the two divinity categories
Tib. *sa bdag* 'earth-owner spirits'

sʰəndzoɣuə mtɕærten ræmne (N N N) — Prayer Recital in the eastern stupa of Balang Village organised in the sixth lunisolar month; in contrast to the nameless Western stupa reported to have been constructed in ancient times, the eastern stupa is a new addition to Balang, constructed by the villagers several decades ago
sʰəndzoɣuə 'proper name'; *mtɕærten* 'stupa' < Tib. *mchod rten* 'stupa'; *ræmne* 'name of the religious ceremony'

ʂəʈʂʰan (N) — Village square, community square: square built in most villages for public gatherings, such as wedding ceremonies; also known by the older Geshiza term *skərjo* 'village square; see also *patsə*
Ch. (regional) *shèchǎng* 社场 'community square'

tɕʰəba (N) — Traditional Tibetan coat
Tib. *phyu pa* 'ibid.'

tɕʰue (N)
(Formal) religion: doctrinal religion with scripture, systematic dogma, and monastic tradition, used in reference to Tibetan Buddhism and Bön and contrasts with folk religion lacking the listed elements
Tib. *chos* 'dharma, religion'

tsʰə-pʰru (N-V)
White paint: substance used primarily for the annual painting of houses before the New Year; lit. 'white dirt'

væ-ntɕ(ʰ)ə-ɲa (N-N?-V)
Name for a period of *ɲa* 'black' days at the end of the eleventh lunar month; literally 'black (days) of pig butchering'
While *ntɕə* from the verb 'to butcher, slaughter' is expected, an aspirated variant *ntɕʰə* is also attested among some speakers

vdə (N)
Ogre: anthropophagous monster that is the male counterpart of *srəmbo*
Tib. *bdud* 'demon, ogre, Mara'

vsaŋkʰaŋ (N)
Place for burning the juniper incense; commonly adjacent to temples and stupas; also found on the rooftop of the *mkʰær-tso* room in all traditional Geshiza houses
Tib. *bsang khang* 'incense house'

we-lmə (N-N)
House name: Geshiza equivalent of a family name typically associated with the building one lives in; alternative pronunciation *jo-lmə*; see also *lmə*

we-lməu (N-N?)
Traditional kitchen of a Geshiza house containing the *məzli*; see also *rʑdæ-tʰəu-wa*

zbro-mtɕʰæ (N-V)
Green Beans Boiling Festival organised to invoke blessings and protection from *æmɲi skældoŋ* in the second lunar month, also known as *zbro-tʰo*

zbro-tʰo (N-V)
alternative name for *zbro-mtɕʰæ*

zəva (N)
see *o zəva*

(z)gosrun (N)
Door guardian deity: deity protecting a building from entering malefic powers depicted on both sides of a door frame in entrances or sheets of paper depicting such deities
Tib. *sgo srung* 'door guardian deity'

zjə~zjæ-ko (V~RED-SUFF)
Small shop typical for the Chinese countryside selling bottled drinks, alcohol, cigarettes, and snacks (Ch. 小卖部)

zlæçʰɔ (N) Leap month: extra thirteenth month caused by the doubling of any of the numbered months in the lunisolar Tibetan calendar to keep it in concordance with the solar year
Tib. *zla shol* 'intercalary month, leap month'.

zɔtæ (N) Altar with gifts for the deceased burned during the *mæne-xui*

ʑasa (N) Picnic Festival with dancing and a horse race organised in the fifth lunar month; people from the following nine villages are to participate: Balang, Bugu, Buke, Eluo, Jiniu, Ke'erjin, Luo'er, Xishua, Zhuosini

ʑə (N) Traditional oral art in which young women and men take turns singing songs; close to extinct in eastern Geshiza Valley

ʑikʰro (N) Scripture Recital Festival organised in the third lunar month

APPENDIX III
List of toponyms and religious loci

This appendix lists prominent toponyms and religious loci mentioned in the grammar in a multilingual format. When available, Chinese, Geshiza, and Written Tibetan forms are included in the entries. As a condition of inclusion, the list presents only entries for which a form in at least two of the languages has been discovered.

Many toponyms distant from Geshiza homeland lack a frequently used Geshiza version. Instead, they are typically borrowed from Tibetan or Chinese, resulting in non-compositional proper nouns in Geshiza. This reflects a typological tendency discussed in Grünthal (1997: 25): most toponyms referring to distant countries and areas enter a language as proper nouns after other means in a language, such as topographical descriptions, result insufficient for making the distinction. It should be noted, however, that even many local toponyms appear to be borrowed from Tibetan, a topic briefly touched in §2.3.4. When known, the likely etymological source for the Geshiza toponyms is indicated as follows: (G) native Geshiza; (T) Tibetan; (C) Chinese, (U) unclear. For instance, the entry *stɔsən* (T) means that the toponym is borrowed from Tibetan.

The entries are organised in an alphabetical order with Chinese forms as the base, since the Chinese forms are used as the standard of reference in this work. As discussed previously, this strategy is adopted for the ease of the reader, since the Chinese forms are frequently used as the basis in modern cartography, consequently making locating them easier through Chinese. In some instances, a Chinese political unit has been created where several villages exist. Such toponyms are also included in this directory, since they are now frequently used by the Geshiza as well.

In Tibetan spelling, this appendix generally lists the forms in an orthographic form used in *Place Name Directories* (地名录)[116] published in China in the 80s as a result of extensive surveys, except in cases where the toponyms are generally known by other spellings in which case multiple alternatives are offered. Some Tibetan toponyms are clearly folk etymologies imposed on Geshiza, such as *bod ra* for Balang Village that in the interpretation includes the word *bod* 'Tibet'. Nevertheless, the highly informative *Place Name Directories* remain the best available source for toponyms in Western Sichuan.

[116] In preparing this appendix, the author had access to the following Place Name Directories: *Place Name Directory of Danba County in Garzê Tibetan Autonomous Prefecture, Sichuan Province* (四川省甘孜藏族自治州丹巴县地名录); *Place Name Directory of Daofu County in Garzê Tibetan Autonomous Prefecture, Sichuan Province* (四川省甘孜藏族自治州道孚县地名录); *Place Name Directory of Jinchuan County in Aba Tibetan Autonomous Prefecture, Sichuan Province* (四川省阿坝藏族自治州金川县地名录).

Finally, in some cases, Geshiza lacks a toponym corresponding to a certain defined area, but nevertheless allows the formation of a related nativity noun/demonym with the suffix *-væ* (see §6.2.2.2). For instance, while the language lacks a term corresponding to the Chinese *wǎjiǎo* (瓦角), the residents of the place are referred to as *ꞑado-væ* '*ꞑado* people', **ado* lacking an independent use. Such instances that often arise from a mismatch between the original Geshiza terminology and the newer Chinese political divisions are also included in this directory.

ānduō yōngzhōng déqīng língsì (安多雍忠德青岭寺)
Most important Bön monastery in Geshiza Valley in the proximity of Dasang Village; official name; also known as *jiǎduōluò sì* 甲多洛寺 on the basis of a Geshiza toponym
Ge. *bjærdærlo* (U); Tib. *lna stag y.gung drung bde chen gling*

āngǔ (安古)
Village in eastern Geshiza Valley, a Chinese toponym coreferential with *bùgǔ* (布谷) Village

bāláng (巴郎)
Village in eastern Geshiza valley
Ge. *bəra* < *bən-ra (U); Tib. *ba ra, pa ra, bod ra*

bādǐ (巴底)
Township in Danba County
Ge. *brəsti* (T); Tib. *brag steng*

bāwàng (巴旺)
Township in Danba County
Ge. *bɔvə* (T); Tib. *dpa' dbang, dpa' bo*

bēijīng (北京)
Capital of China
Ge. *petɕin* ~ *bedʑin* (C), *rdʑænɔ* (Tib. < *rgya nag* 'China' also used to refer to the capital); Tib. *pe cing*

biān'ěr (边耳)
Township in Danba County, central Geshiza Valley
Ge. *spjar* (U); Tib. *bal ri, bla ri*

bóměi (博美)
Township in Xinlong County
Tib. *bang smad*

bùgǔ (布谷)
Village in eastern Geshiza Valley
Ge. *bəgu*, possibly < *bən-gu (U); Tib. *bu bkang*

bùkē (布科)
Village in eastern Geshiza Valley
Ge. *bəq^{h}o* < *bən-q^{h}o (U); Tib. *sbu khog*

chāngdū (昌都)
Prefecture in Tibet Autonomous Region
Tib. *chab mdo*

chéngdū (成都)
Capital of Sichuan Province
Ge. *ʈʂ^{h}əndu* (C), *rdʑæjin* (T < *rgya yul* 'China, the land of the Chinese'), Tib. *khrin tu'u*

dàdù hé（大渡河） River flowing through Danba County Town into the Sichuan Basin
Tib. *gyal mo rngul chu*

dàjīn chuān（大金川） River flowing into Dadu River from the north
Tib. *chu chen*

dàsāng（大桑） Village in eastern Geshiza Valley
Ge. *stɔsən* (T); Tib. *stag gsum*

dānbā（丹巴） County in Ganzi Tibetan Autonomous Prefecture
Ge. *braŋgu* (T < *'brag 'go*); Tib. *rong brag*, an abbreviation of *rong mi brag 'go*

dāndōng（丹东） Township in Danba County, western Geshiza Valley
Ge. *ndæmdo* ~ *mdæmdo* (U); Tib. *mda' mdo*

dǎngbà（党坝） Township in Ma'erkang county-level city in Aba Prefecture
Tib. *dam ba*

dǎnglǐng（党岭） Village and scenic area in western Geshiza Valley
Ge. *dən* (U), *tanlin* (C) also used for this relative distant place from the perspective of the Eastern Geshiza speakers

dàofú（道孚） County in Ganzi Tibetan Autonomous Prefecture
Ge. *stæwə* (U); Tib. *rta'u*

dàzhài（大寨） Village group in eastern Geshiza Valley; a Chinese aggregate name given for the two Geshiza villages *ŋguələ* (U) (俄洛) and *a̠lovær* (U) (洛尔)
Ge. *taʈʂɛ* (C)

dōnggǔ（东谷） Township in Danba County
Ge. *stəŋguə* (T); Tib. *stong dgu*

dōnggǔ hé（东谷河） River flowing into Dadu River from the south-west
Tib. *stong dgu chu*

éluò（俄洛） Village in eastern Geshiza Valley
Ge. *ŋguələ* (U); Tib. *'go lo*

èrkǎi（二楷） Village in Jinchuan County
Tib. *ri Sha* (ad hoc Tibetan spelling)

gānsù（甘肃） Province in the PRC
Tib. *kan su'u*

gānzī（甘孜） Autonomous prefecture and town in Sichuan

Ge. *gæmze* (T); Tib. *dkar mdzes*

gékǎ（葛卡） Township in Daofu County
Tib. *khug chags*

géshízā（革什扎） Town in Danba County (previously classified as Township)
Ge. *rgævɕetsa* (T, see §1.1.3); Tib. *dge bshes (r)tsa, dge bshes gra*

géshízā hé（革什扎河） River flowing through Geshiza Valley
Tib. *dge bshes (r)tsa chu, dge bshes gra chu*

géxī（格西） Township in Daofu County
Ge. *rgeɕe* (T), individual variation exists in the toponym due to a lower level of familiarity, Chinese-based *keɕi* also being in use;
Tib. *dge shes*

gézōng (格宗) Township in Danba County
Ge. *gəzoŋ* (T); Tib. *dgu rdzong*

jiǎduōluò sì (甲多洛寺) See *ānduō yōngzhōng déqīng lǐngsì* (安多雍忠德青岭寺)

jiǎjū（甲居） Group of settlements in Niega Township
Ge. *dʑædʑə* (possibly T, yet the expected **rdʑætɕə* is incorrect);
Tib. *brgya gcig*

jiǎsīkǒng（甲斯孔） Township in Daofu County
Tib. *lcags rkong*

jīnchuān（金川） County in Sichuan Province
Ge. *tɕinʈʂʰuæn* (C); Tib. *chu chen*

jíniú（吉牛） Village in eastern Geshiza Valley
Ge. *dzæɲo* (U); Tib. *rgyud myong*

jírǔ（吉汝） Village in eastern Geshiza Valley
Ge. *dʑirə* (U); Tib. *ci ru'u*

kāngdìng（康定） County-level city in Ganzi Tibetan Autonomous Prefecture
Ge. *mdo* (T); Tib. *dar mdo,* an abbreviation of *dar tse mdo*

kē'ěrjīn（柯尔金） Village in eastern Geshiza Valley
Ge. *mkʰærtɕə* (U); Tib. *mkhar can*

kǒngsè（孔色） Township in Daofu County
Tib. *khang gsar*

lèilei（累累） Village in eastern Geshiza Valley
Ge. *luzlə* (U); Tib. *legs legs*

lǐtáng（理塘） County in Ganzi Tibetan Autonomous Prefecture
Ge. *litʰoŋ* (T); Tib. *li thang*

lúhuò（炉霍） County in Ganzi Tibetan Autonomous Prefecture
Ge. *xər-braŋgu* (T < *hor brag 'go,* namely '*brag 'go* of the Hor' in contrast to *rong mi brag 'go* meaning '*brag 'go* of the farmers/valley dwellers, i.e. Danba'), recently also called *luxo* (C); Tib. *brag 'go*

luòěr（洛尔） Village in eastern Geshiza Valley
Ge. *a̱lovær* (U)

máoniú（牦牛） Village in south-western Danba County
Ge. *məuniu* (C)

máoniú hé（牦牛河） Alternative name for Donggu River

másuǒ（麻索） Abandoned mountain settlement in eastern Geshiza Valley
Ge. *mæso* (U); Tib. *ma song*

mázī（麻孜） Township in Daofu County
Tib. *ma zu(r)*

mò'ěrduō（墨耳多） Location of the holy mountain *dmu rdo* north-east from Danba County Town, the principal mountain deity in the Gyalrong area
Ge. *mærtə* (U); Tib. *mu rdo*

mòsīkǎ（莫斯卡） Scenic settlement area and a monastic centre in northern Danba
Ge. *mæsqʰa* (U); Tib. *mo si kha*

mózigōu（磨子沟） Valley running approximately at north-south axis connecting to Geshiza Valley; leads to *Mosika*
Ge. *mædzə-qlo* (U, with the native *qlo* for 'valley'); Tib. *mog rtsi lung*

mùrú（木茹） Township in Daofu County
Tib. *mo rims*

niègā（聂呷） Township in Danba County; Ge. *ɲælka* (U)
Tib. *nya ga, nyin dkar*

pōxiū（坡修） Village in Mazi Township
St. *pʰoʑu;* Tib. *phog sho*

pǔlǔwō（普鲁窝） Place in Jiaju of Niega Township known for an annual horse race accompanied by dancing performances on the 15th white day of the fourth Tibetan month; attended by many Geshiza who

perform a pilgrimage at the same occasion
Ge. *pʰoloɣuə* (from Bawang Horpa where the term is likely of native origin)

púxī（蒲西） Township in Rangtang County
Tib. *pho sul*

qiánjìn（前进） Village in eastern Geshiza Valley
Ge. *ą̊ʑəu* (U)

rǎngtáng（壤塘） County in Aba Prefecture
Tib. *'dzam thamg*

réndá（仁达） Township in Luhuo County
Tib. to be added to the final version

sānchàhé（三岔河） District in eastern Danba County Town with many Geshiza inhabitants
Ge. *sænʈʂʰaxo* (C)

sāndàoqiáo（三道桥） Village group in eastern Geshiza Valley; a Chinese aggregate name given for the four Geshiza villages *rgæɲa* (U, possibly G *rgæ-ɲa* 'black stone'), *bæzɣuə* (U), *rəuvra* (U), and *gætu* (U)
Ge. *sæntəutɕʰiəu* (C)

sèdá（色达） County in Ganzi Tibetan Autonomous Prefecture known to the Geshiza primarily as a pilgrimage destination
Ge. *sertʰa* (T); Tib. *gser thar*

shāchōng（沙冲） Township in Daofu County
Ge. *ɕʰæɖʐoŋ* (T); Tib. *shar grong*

shílǐ（石里） Township in Rangtang County
Tib. *si li*

shuǐzi（水子） Township in Danba County
Tib. *kha mdo*

sìchuān（四川） Province in South-Western China
Ge. *səʈʂʰuæn* (C); Tib. *si khron*

sīmù（斯木） Township in Luhuo County
Tib. *srib mo*

suōpō（梭坡） Township in Danba County
Ge. *sopʰo* (C); Tib. *sog po*; if the Geshiza toponym were borrowed from Tibetan, the expected form would be *sʰɔpo* while *sopʰo* is

the regular expected result from Chinese borrowing

tàipíngqiáo（太平桥） Township in Danba County
Tib. *mchod rten sgang*

tuǒpí（妥皮） Village in eastern Geshiza Valley
Ge. *tʰobji* (G); Tib. *mtho pa*

wǎbà（瓦坝） Village group in eastern Geshiza Valley; a Chinese aggregate name for several Geshiza villages, such as *stɔɕæ* (U) and *vərŋə* (U)
Ge. *wapa* (possibly C); Tib. *mda' pa*

wǎjiǎo（瓦角） Village in eastern Geshiza Valley
Ge. *ạdo-væ* (demonym) (U)

wǎrì（瓦日） Township in Daofu County
Tib. *dba' zhabs*

wǎzú（瓦足） Village group in eastern Geshiza Valley; a Chinese aggregate name for three Geshiza villages *atɕæn* (U), *tɕʰərə* (U), and *stʰɔ* (U)
Ge. *watɕo* (possibly C)

xiānshuǐ（鲜水） County Town of Daofu County
Ge. *stæwə* (U, general term used also for Daofu County as a whole); Tib. *phyag ru*

xiǎojīn chuān（小金川） River flowing into Dadu River from the north-east, also used as a county name in Sichuan
Tib. *btsan lha*

xīnlóng（新龙） County in Ganzi Tibetan Autonomous Prefecture
Ge. *ɲəuroŋ* (T); Tib. *nyag rong*

xīnqū（新区） District of Danba County Town close to Geshiza Valley undergoing rapid development where according to local legends once stood a great Bön monastery that was destroyed
Ge. *bədzu* < *bən-(n)dzu (U)

xīshuā（西刷） Village group in eastern Geshiza Valley; a Chinese aggregate name for several Geshiza villages on the mountain slope at the eastern end of Geshiza Valley
Ge. *ɕiɕua* (likely C), also *qa-væ* (demonym) G) lit. 'mountain dwellers' from the viewpoint of people dwelling in the lower valley; Tib. *bsil sa*

xīzàng（西藏） Tibet
Ge. *ɕʰæsa ~ ɕʰæsəu* (T < *lha sa* 'Lhasa'), also used more specifically to refer to Lhasa; Tib. *bod*

yángliǔpíng（杨柳坪） Seat of Geshiza Town (革什扎镇), previously known as Geshiza Township (革什扎乡)
Ge. *jænlupʰin* (C)

yímù（宜木） Township in Luhuo County
Tib. *nyin mo*

yúnnán（云南） Province in the PRC
Tib. *yun nan*

zhānggǔ (章谷) County Town of Danba County
Ge. *braŋgu* (T); Tib. *brag 'go*

zhāxī rénqīng lǐng sì (扎西仁青岭寺) *dge lugs pa* monastery in Buke Village of eastern Geshiza Valley, a regionally important centre of Tibetan Buddhism
Ge. *ʈsaɕʰi-rintɕʰin-ʂalan* (T); Tib. *bkra shis rin chen gling*

zhōngguó（中国） China
Ge. *rdʑænɔ* (T, old term), *ʈsuŋkui ~ ʈsuŋkuo* (C, new term; the latter form being a result of increasing Mandarin influence in the Geshiza homeland); Tib. *rgya nag*

zhōnglù（中路） Township in Danba County
Ge. *ʈsəmnɔ* (possibly T); Tib. *spro snang*

zhuósīní（卓斯尼） Village in eastern Geshiza Valley
Ge. *dzosni* (U); Tib. *zam zur nye*

zìshēngtǎ (自生塔) An important Bön pilgrimage destination on the slope of Mt. Murdo; see La'erwujia (2000) for a brief description of repairs and evolution from obscurity into a prominent pilgrimage destination in China after the Cultural Revolution
Ge. *roŋdʑoŋ* (T), Tib. *rang byung?* (lit. self-arisen)

zōngkē（宗科） Township in Rangtang County
Tib. *rtsang khogs*

zuǒgòng（左贡） County in Changdu Prefecture
Tib. *mdzo sgan*

APPENDIX IV
List of prominent figures

This appendix lists the prominent personal names mentioned in this work regardless of their historicity. The appendix aims to help readers gather more information about the personages mentioned and to compare the Geshiza terminology with that of other ethnic Tibetan groups.

ækə-stæmba
Legendary Tibetan trickster figure that plays a prominent role in Geshiza folklore
Tib. *a khu ston pa*

æmɲi skældoŋ
a mye sgo ldong: Geshiza folk hero who saved the Geshiza Valley from a ferocious ogress, also known among other Gyalrongic peoples; *a mye sgo ldong* is blessed with an enormous appetite since birth, so that his community is unable to support him, which makes him choose voluntary exile from where he is called back to vanquish a ferocious ogre or ogress that has emerged in Geshiza Valley
Ge. *æmɲi* 'grandfather, a respectful way to address elderly men'; *skældoŋ* possibly a Tibetan loan from *sgo ldong*

æmɲi ismær rdʑælpo
Figure appearing in Geshiza folklore whose relationship with *æmɲi skældoŋ*, if any, remains unclear
Ge. *æmɲi* 'grandfather, a respectful way to address elderly men'; *rdʑælpo* a Tibetan loan *rgyal po* 'king' that in this context refers to a category of divinities (see Kværne 1995: 109); *rdʑælpə* being the normal Tibetan loanword for 'king, chieftain, ruler' borrowed from the same Tibetan *rgyal po*

(a̱)pældæn
Famous landlord of Geshiza that according to the oral histories was re-educated by the Chinese after the incorporation of Geshiza lands by the PRC and later acquired a post in the Communist government; even though not a taboo, the name is now relatively rare among the Geshiza, who generally avoid giving the *lmə gæ-tɕʰæ* 'big or powerful name' to their children due to its associations with the historical figure
Tib. *dpal ldan*

bələmbə ŋgær Minister of *srong btsan sgam po*, an emperor of Tibet, who according to legends was dispatched to China to bring Princess Wencheng to Tibet for marriage; famous among the Geshiza for his wit in dealing with the ordeals by the Emperor of China
Tib. *blon po mgar* in which the initial cluster has split by an epenthetic vowel in Geshiza; *mgar stong btsan* commonly used in Written Tibetan

ʤʐæmba-næmkʰa *Dran pa nam mkha'*: an important Bön master who according to the Bön tradition was the father of Padmasambhava; in the Tibetan Buddhist Tradition, the father-son relationship is reverse
Tib. *dran pa nam mkha'*

mətustɕe Geshiza folklore 'anti-hero' who believes her wife to be virtuous and faithful, only to be proven wrong after making a bet with a rich trader and deceived by women in subsequent episodes; in the end, *mətusɕe* realises that monastic life is preferable to female companionship
Etymology unclear, no identifiable meaning in contemporary Geshiza, but *mətustɕe* stories themselves contain identifiable elements of Indian Vetāla Tales (Sanskrit: *vetālapañcaviṃśati*) likely transmitted through Tibetan

pæma-mdʑone Padmasambhava: a Buddhist master revered for introducing Tibetan Buddhism into Tibet and subduing demonical forces by converting them into protectors of Buddhism; in the Bön tradition depicted to leave the tradition of his father *dran pa nam mkha'* and founding Tibetan Buddhism as a new religion
Tib. *pad+ma 'byung gnas*

pʰu gesar King Gesar, king of the kingdom of *gling* and the national epic hero of Tibet who plays a role in the Geshiza folklore
Tib., possibly *phrom ge sar* or a similar term; great variation on the actual form of the name exist in the Tibetosphere and among the neighbouring peoples

rdʑæza æntɕoŋma Princess Wencheng (文成公主), a Tang princess betrothed to *srong btsan sgam po*, an emperor of Tibet
TL *ya bza' ong cong ma* that appears to be a regional term for the Princess; *rgya bza' kong jo* commonly used in written Tibetan

zæmkær skəʑɔ Reincarnated master *zæmkær*, famous for his miracles of carrying water in a porous bamboo container

APPENDIX V
List of affixes, clitics, and process formatives

This appendix provides a list of all of the major attested affixes, clitics, and process formatives in Geshiza, together with their classification, host type, function, and a reference for the relevant section in this grammar for more detailed information.

n/a	Conversion between N and V; see §6.2.4
C ~ C^{h}	Aspiration alternation with V-hosts; indicates tense (past and non-past); see §4.3.5.3, §8.4
C$_{VOICED}$ ~ C$_{UNVOICED}$	Voicing alternation with V-hosts; encodes valency in causative and anti-causative verb pairs; see §6.2.3.5
Σ~RED$_1$	Reduplication with N-hosts; derives general nouns; see §6.2.2.7
Σ~RED$_2$	Reduplication with V-hosts; derives action nominalisations; see §6.2.3.1
RED.ADJZ~Σ	Reduplication with V-hosts; derives adjectives; see §6.2.3.2
RED~Σ	Reduplication with V-hosts; indexes the plurality of arguments or mutuality of action; see §4.3.5.5
a̱-	Prefix with V-hosts; historically derived intransitive verbs; see §6.2.3.6
-a-	Prefix with V-hosts; indicates the optative mood; see 8.5.5
æ-$_1$	Prefix with CLF-hosts; numeral prefix 'one'; see §4.6.1
æ-$_2$	Prefix with N-hosts; historical kinship marking; see §4.2.5
æ-$_3$	Prefix with N-hosts; derives collective nous; see §6.2.2.6
æ-$_4$	Prefix with V-hosts; indicates the interrogative mood; see §8.5.3, §10.1.2
æ-$_5$	Prefix with V-hosts; derives semelfactive nous; see §6.2.3.3
-ɔ-	Prefix with V-hosts; indicates the non-actual realis mood; see §8.5.2
=ba	Enclitic with typically V-hosts; modal discourse function; see

	§8.6.5
=be	Enclitic with NP and V hosts; discourse intensifier; see §13.6.1
=bɔ	Enclitic with typically V-hosts; modal discourse function; see §8.6.5
=bɔmŋa ~ =bɔmja	Enclitic with NP-hosts; indicates the comparative case; see §5.3.10
dæ-	Prefix with V-hosts; indicates the perfective aspect, imperative mood, and direction-neutral orientation; see §8.2, §8.3.1, §10.2.2.
-di- ~ -dʑi-	Prefix with V-hosts; indicates negation of irrealis; see §11.2.3
=gæ	Enclitic with typically V-hosts; modal discourse function; see §8.6.5
gæ-$_1$	Prefix with V-hosts; indicates the imperfective aspect, imperative mood, and orientation towards the upstream; see §8.2, §8.3.2, §10.2.2.
gæ-$_2$	Prefix with V-hosts; derives adjectives; see §6.2.3.2
gægæ-	Prefix with V-hosts; indicates the cumulative aspect; see §8.3.5
gə-	Prefix with numeral CLF-hosts; indicates distributivity; see §5.5.4
-go	Suffix with V-hosts; indicates non-shared information; see §9.2.6
=goŋ	Enclitic with V-hosts; modal discourse function; see §8.6.5, §10.1.6
-ɣa$_1$	Suffix with NP-hosts; indicates the locative case with low productivity; see §5.3.11
-ɣa$_2$	Suffix with nominalised verbs as hosts; indicates the potential mood; historically related to *-ɣa*$_3$; see §8.6.3
-ɣa$_3$	Suffix with V-hosts; indicates the apprehensive imperative; historically related to *-ɣa*$_2$; see §10.2.3
-ɣuən	Suffix with V-hosts; forms the archaic imperative where it possibly functions as a second person argument indexation suffix; see §10.2.5
-i	Suffix with V-hosts; indexes second person singular; see §4.3.3, also §4.3.4 and §7.2.1
-i-	Prefix with V-hosts; indicates the interrogative mood; see §8.5.3,

	§10.1.2
***=je*$_1$ ~ fusional forms**	Enclitic with NP-hosts; indicates the genitive case; see §5.3.3
***=je*$_2$**	Enclitic with typically V-hosts; modal discourse function; see §8.6.5
-je	Suffix with V-hosts; derives instrument nominalisations; see §6.2.3.1
=ke	Enclitic with NP-hosts; indicates the dative case; see §6.3.4
jæ-	Prefix with V-hosts; indicates the continuative aspect; see §8.3.4
-jə	Suffix with V-hosts; indicates reportative evidentiality; see §9.2.4
=jɔ	Enclitic with typically V-hosts; modal discourse function; see §8.6.5
***-ko*$_1$**	Suffix with N-hosts; derives locative nouns; see 6.2.2.4
***-ko*$_2$**	Suffix with V-hosts; derives locative nominalisations; see §6.2.3.1
=k^{h}a	Enclitic with NP-hosts; indicates approximation; see §4.13.1
-lV	Suffix with N-hosts; historical nominal suffix; see §4.2.5
-lV ~ -rV	Suffix with V-hosts; historical repetitive derivation; see §6.2.3.10
-lɣuə	Suffix with N-hosts; historical male sex marking for animals; see §4.2.5
-lŋa	Suffix with N-hosts; diminutive derivation; see §6.2.2.1
=lɔ	Enclitic with NP-hosts; indicates the terminative case; see §5.3.8
=lu	Enclitic with typically V-hosts; modal discourse function; see §8.6.5
-(l)ma ~ -(l)mæ	Suffix with N-hosts; historical nominal suffix; see §4.2.5
-(m)bə	Suffix for male names; see §2.3.4
mə-	Prefix with V-hosts; indicates modal non-aspectual negation; see §11.2.2
-mə	Suffix with V-hosts; uncertain function in the epistemic system; see §9.2.7
***=m(d)e*$_1$**	Enclitic with NP hosts; discourse intensifier; see §11.4.2, §13.6.3
***=m(d)e*$_2$**	Enclitic with typically V-hosts; modal discourse function; see

	§8.6.5
=mdɔ	Enclitic with typically V-hosts; modal discourse function; see §8.6.5
mi-	Prefix with V-hosts; indicates standard non-aspectual negation; see §11.2.1
mɛ-	Prefix with V-hosts; indicates aspectual negation; see §11.2.1
-me	1. Suffix with N-hosts; derives agentive nouns; see §6.2.2.3; 2. Suffix with V-hosts; derives agentive nominalisations and forms relative clauses; see §6.2.3.1, §12.5
=mɲoŋ	Enclitic with typically V-hosts; modal discourse function; see §8.6.5
=mɔ	Enclitic with typically V-hosts; modal discourse function; see §8.6.5
-mu	Suffix for female names; see §2.3.4
-n	Suffix with V-hosts; indexes second person; see §4.3.3, also §4.3.4 and §7.2.1
N-$_1$	Prefix with N-hosts; derives verbs through verbalisation; see §6.2.2.5
N-$_2$	Prefix with V-hosts; derives applicatives; see §6.2.3.8
N-$_3$	Prefix with V-hosts; derives autobenefactives; see §6.2.3.7
=na	Enclitic with V-hosts; forms universal concessive conditionals; see §12.3.3.2
=navzoŋ	Enclitic with V-hosts; forms hypothetical and counterfactual conditionals; see §12.3.2.2
=næ	Enclitic with N-hosts; indicates dual number; see §5.2.3
næ-	Prefix with V-hosts; indicates the perfective aspect, imperative mood, and orientation towards the river or downwards; see §8.2, §8.3.1, §10.2.2.
=nɔ	Enclitic with NP-hosts; indicates the locative case; see §5.3.7
ɲjæ-	Prefix with V-hosts; derives reflexives; see 6.2.3.9
=(n)ts^{h}əu	Enclitic with NP-hosts; indicates associativity; see §5.2.5
=ɲə	Enclitic with NP-hosts; indicates plural number; see §5.2.4

-ŋ	Suffix with V-hosts; indexes first person; see §4.3.3, also §4.3.4 and §7.2.1
=ŋɛtɕe	Enclitic with NP-hosts; indicates the approximative locative case; see §5.3.6
-pa	1. Suffix with N-hosts; derives agentive nouns; see §6.2.2.3; 2. Suffix with V-hosts; derives agentive nominalisations; see §6.2.3.1
=pʰa	Enclitic with NP-hosts; indicates the comitative case; see §5.3.9
-qʰua	**1.** Suffix with N-hosts; derives pejorative agentive nouns; see §6.2.2.3; 2. Suffix with V-hosts; derives pejorative agentive nominalisations; see §6.2.3.1
-ræ	Suffix with V-hosts; indicates sensory evidentiality; see §9.2.2
rə-	Prefix with V-hosts; indicates the perfective aspect, imperative mood, and orientation away from the river or upwards; see §8.2, §8.3.1, §10.2.2.
s/z-$_1$	Prefix with N-hosts; derives verbs through verbalisation; see §6.2.2.5
s/z-$_2$	Prefix with V-hosts; derives causatives; see §6.2.3.4
-sʰi$_1$	Suffix with V-hosts; indicates inferential evidentiality; historically possibly related to *-sʰi*$_2$; see 9.2.3
-sʰi$_2$	Suffix with V-hosts; derives agentive nominalisations and forms relative clauses; historically possibly related to *-sʰi*$_1$; see §6.2.3.1, §12.5
-tʰoŋ	Suffix with V-hosts; derives manner nominalisations; see §6.2.3.1
=tɕe	Enclitic with NP-hosts; indicates the instrumental case; see §7.4.7
-u	Suffix with V-hosts; indexes first person singular; see §4.3.3, also §4.3.4 and §7.2.1
v-	Suffix with V-hosts; indexes the inverse; see §
-va ~ -væ	Suffix with N-hosts; historical nominal suffix; see §4.2.5
-væ	Suffix with N-hosts; derives 'nativity and source' nouns; see §6.2.2.2.
-wa	Suffix with NP-hosts; indicates the marginal apudessive case with low productivity; see §5.3.11

=wo$_1$	Enclitic with NP-hosts; indicates the marginal superessive case with low productivity; see §5.3.11
=wo$_2$ **~ fusional forms**	Enclitic with NP-hosts; indicates the ergative case; see §5.3.2
=za	Enclitic with typically V-hosts; modal discourse function; see §8.6.5, §10.1.2, §10.1.4
zə-$_1$	Prefix with V-hosts; indicates the prospective aspect; see §8.3.3
zə-$_2$	Prefix with V-hosts; derives superlative adjectives; see §4.4.1
=zə	Enclitic with V-hosts; forms general conditionals; see §12.3.2.1
-zi	Suffix with N-hosts; historical diminutive derivation; see §6.2.2.1
=zɔ	Enclitic with NP hosts; discourse intensifier; see §13.6.2
-ʑæ	Suffix with V-hosts; derives patient nominalisations; see §6.2.3.1
=ʑær	Enclitic with V-hosts; forms adverbial clauses with concurrent action; see §12.3.1.1

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